Andy Deas: Six listeners can't be wrong.

Robb Wolf: Yeah, six listeners cannot be wrong.

Robb Wolf. Andy Deas. The Paleo Solution. Holy cow!

Andy Deas: Robb Wolf, Andy Deas back with episode 55, the Paleo Solution. How are you?

Robb Wolf: Dude, I'm better than last week. The sun was not out and I was cranky.

Andy Deas: I feel like we're getting a little late summer here, but I think it's going to start raining any day now.

Robb Wolf: Yeah. It was like 76 degrees yesterday and the weather is looking nasty for the weekend so I'm not too excited about that.

Andy Deas: Don't tell me that, Robb.

Robb Wolf: What's new with you?

Andy Deas: I'm drinking a lovely glass of decaf coffee.

Robb Wolf: How's that working for you?

Andy Deas: Actually today is day 11 with, you know, I'm going to say no caffeine but I have been drinking some decaf so it's almost no caffeine. On Monday, day eight, the headache stopped.

Robb Wolf: You know, I think that's almost like the amount of caffeine you could get just by being in the room in a good coffee house and people are just kind of sweating.

Andy Deas: Yeah. And there was a big temptation yesterday. I hung out with Kelly Starrett of San Francisco CrossFit. Before I get there he called me and he was like, "Hey, I'm running behind. Can you pick me up a coffee from down the street? The usual one with cream." I walked in, I was able to purchase his and not going for myself and I survived.

Robb Wolf: Wow.

Andy Deas: I know. It's stunning, isn't it? It's almost like I'm a not addict for a few days.

Robb Wolf: Or maybe you knew that Kelly was going to rip your hips and shoulders asunder, and so he didn't want to find your lipstick marks on the cup or something.

Andy Deas: Yeah. My new Facebook profile picture is of me doing like the Butterfly stretch with a 65-ton bar across my legs.

Robb Wolf: Nice.

Andy Deas: Which was a lovely way to spend eight minutes.

Robb Wolf: That's impressive.

Andy Deas: What's going on with you? What else is happening?

Robb Wolf: We've got Paleo Solution Seminar. The one in Woodinville, outside of Seattle, is completely sold out. The one in Hawaii still has a few slots. That one is on December

11. We've got Tim Ferriss coming on the show. You and I are recording that on the first, and then are potentially running out on the second or something? We'll bounce if off with Tim and see when he wants it run. We might run it on either the second or a little bit later in December because I think he's releasing it around the 12th or something. So we're talking to him about his new book, The Four-Hour Body.

Andy Deas: Yes, it is all about Tim Ferriss. So when everyone has released it, we can release the podcast.

Robb Wolf: Far back.

Andy Deas: Robb, when is the 2011 schedule going to be out? What's going on with that?

Robb Wolf: The 2011 schedule should be up soon. We'll have some interesting things that we're going to release with that. Professor Cordain and I are going to be on the road a bit. PSS is going to get a revamp. It should be cool. I'm super excited, super excited.

Andy Deas: PSS is Paleo Solution Seminar, right? Is that what you're saying?

Robb Wolf: Indeed.

Andy Deas: Yes.

Robb Wolf: Either that or some sort of incontinence problem, yes.

Andy Deas: I was very nervous right now.

Robb Wolf: Yeah.

Andy Deas: And then I think we wanted to mention a little bit I know this whole discussion started, well, me always being dehydrated and then Kelly Starrett was mentioning on his MWod he is seeing a rash of people in Paleo land with pretty high levels of dehydration, even those that aren't necessarily doing a super high volume of training. I don't know, Robb. You and I have talked in the past. I've gone through periods where I would experiment with putting sea salt in my water jug that I carry around all day and that seem to really help with my electrolyte imbalance, and I know Kelly has been playing a bunch with the Ultima stuff which several people have talked about. I think on the podcast we got questions about that stuff post-workout. So one I wanted to pick your brain on, any thoughts on why we may, and this is a may, it's not causation necessarily, be seeing some folks with high levels of dehydration kind of in Paleo land?

Robb Wolf: You know, it could be that folks are just generally low in insulin levels and so they're generally hanging on the less sodium. So when insulin is high, we produce more aldosterone. That aldosterone would caused a retention of sodium, caused a retention of water, so in total then like our fluid balance is probably going to be a little bit better depending on if you were at the low-end of the scale or it may be too much if we're in that like hyper-insulin, high blood pressure side of the scale. So this is one of the main features of kind of the low carb or Paleo type diet even if the carbs are a little bit higher which is that because we're controlling insulin levels so well we're not seeing metabolic arrangement happening so we tend to see a diuretic effect which then do shed a lot of sodium, shed the water that's associated with that sodium. So that could be a feature of this. I threw out to Andy that there might be a feature of some over training but, you know, I guess we've kind of shut that thing down. But I had a thought which is this, maybe some of what we see at the inflexion point between kind of health and performance where generally eating kind of the Paleo type diet, you know I think everybody is probably largely on board with the idea that lean meat, fruits, vegetables,

good fat, all that jive are generally pretty healthy for you. But if we're really driving to the performance side of things, there would be an argument for needing more electrolytes particularly sodium to maintain some fluid balance with harder training athletes like I think there's every potential with that and this maybe kind of an inflexion point where we see a shift from health to performance orientation.

Andy Deas: What are your thoughts on some potential solutions to help with the electrolyte imbalance?

Robb Wolf: You know, like you said you were adding a little bit of sea salt to the mix. Adding sea salt or like standard iodized salt, because we talked before about lack of iodine potentially being a little bit of an issue within this whole Paleo stick, and so I think in general just adding some sodium to the mix. I've always been kind of intrigue why I don't have any of these signs and symptoms, but it could be because I eat bacon fairly frequently like because being on the road and stuff like that I'm usually eating fairly salty foods so I'm kind of wondering if I'm getting some of that effect going on. But throwing a little bit of salt in the mix -- because I think everybody is good on like potassium, magnesium, calcium, zinc and all that sort of stuff, where they may need a little bit more help particularly in retaining water might be popping their sodium up a little bit with the net result being that you see a little bump in your performance. Some of the tests were like you push next to your shin or you hold your hand flat on a table and then pick it up and see how quickly the veins flatten out and what-not, and if they flatten out really quickly then you might be dehydrated. So we could maybe dig around and look for some online examples of dehydration so people could self-check and then try an intervention and see if they're getting improvement in their hydration level.

Andy Deas: It's funny for me because I've been playing with the Paleo thing for several years but I remember a couple years ago when I worked out at Jack Henkin's gym, henkinfitness.com or whatever his new website is, he did a thing where one day he came in, I guess he was not happy with my performance and he gave me this big hunk of salt just to suck on for five minutes. He's like "Just go suck on this for five minutes." We're going to come out back and we'll work out again. He's like, "Here, this is going to work. I may not look like a genius, or you just are going to have to suck on salt for five minutes." I don't have an idea what he's getting at and I got this pretty significant uptake in performance and I was like "Hmm, interesting." I'm not really sure what was going on at that time, but I was like "All right, I'll try it."

Robb Wolf: You know, we're understanding so much more about like the central governor theory of like regulating work output and energy output particularly in long endurance events and we've usually just subscribe to all those importance too like look like actual bio-physical contents of our body say like blood glucose levels go up and so the chemo receptors that measure blood glucose levels communicate with the pancreas and cause the pancreas to release insulin to bring blood glucose levels back down. So this wall all very mechanistic in understanding, but now we get the fact that like a taste of sweet communicates with the hypothalamus of the brain. The hypothalamus then electrochemically communicates with the pancreas to potentially release insulin. So there are more ways that we are regulating things, biological redundant systems that regulate these different processes, and so maybe there's some sort of a central governor element that if we get a good dose of some salt, some sodium and our body knows that we're otherwise probably okay with regards to electrolyte status or maybe we're raving a little bit efficient but maybe this isn't even a deficiency thing, maybe this is just a little bit of a ergogenic effect where the central governor kind of gig would get a salty taste similar to a sweet taste like there have been these studies where people who would exercise to exhaustion simply rinse their mouth out with a sweet tasting solution and then they were able to go another 5% or 10% of work output. So maybe there is something to all that stuff and this is something that's going in a little bit of a different direction where Kelly is observing what he feels like some

over dehydration that you can gauge again by like these skin depression tests and see how quickly the skin reperfuses and bounces back. So this is a little bit different deal, but I don't know. There's potentially a little more complexity to this than what meets the eye, but certainly worth tinkering with and seeing what people get out of it.

Andy Deas: Yeah. Hey Robb, 10 minutes in and we have the answer to the question. Good work, good work.

Robb Wolf: Last week it was 11 so I think we're 10% better or something like that.

Andy Deas: That's a good point, you know.

Robb Wolf: Yeah.

Andy Deas: A little better each time.

Robb Wolf: Right.

Andy Deas: First we got a question from Rob for Robb. He says, "I just finished reading your book and I must say you did a good job making some of the dry stuff palatable. I have a question though. I think you do a fine job of dismantling wheat in your book, but when it comes to oatmeal you say, 'Yep, I love oatmeal too, but it contains similar proteins to gluten. Cereal grains tend to have proteins that are high in amino acid proline. The prolamin, proline-rich proteins, are tough to digest and thus remain intact despite the best efforts of the digestive process to break them down. The result is gut irritation, increased systemic inflammation, and the potential for autoimmune disease.' When I did a simple google search on proline in foods, I found that oatmeal has 800 mg of proline per 100 grams. Pork loin has 910 mg per 100 grams. So why can't I eat oatmeal again? Curious for your answer. I'm a personal trainer, a fellow geek, and would love if you could answer this and also share some of your nerdier resources with me. Thanks."

Robb Wolf: Oh, man. I'm not sure what the tagline is for this. Either a little information is dangerous or the devil is in the details. I guess both of them are kind of appropriate. So proline is an amino acid. It's a rather large kind of cumbersome amino acid which is found in a wide variety of foods, but what the problem is with grains is that they have prolamins, proteins that are rich in this amino acid proline which is very, very hard to break down. Now this is different than simply looking at the proline content of a food which can include a proline amino acid [unintelligible] here and there mixed around an otherwise kind of mixed amino acid profile of a protein. It would be relatively easily broken down and digested. So the real difference here is that a high proline food does not mean that is a prolamin-rich food. Prolamines are proteins that are either exclusively or predominantly made of proline, which, because of the morphology or the structural characteristics of proline makes it very, very difficult to pour it down. It tends to be resistant to most peptidases and other protease enzymes that we would usually see breaking stuff down like collagen. or carotene, or myoglobin or something like that.

Andy Deas: Good. All right. Moving on, Robb. We're keeping the bus moving.

Robb Wolf: Woohoo.

Andy Deas: A question from Helen. "I have been eating a low carb diet most of my adult life. I'm 53. In the past few years I have made a further refinement by eating mostly Paleo. I read everything I can on the subject and in my own quiet way have become a bit of a zealot. Hard not to spread the word. One thing I notice is that for most people the feeling is that it's not our diet but an environmental contamination that is responsible for all the

diseases, etc. What are your feelings on this? How much of the western disease capacity in our culture is diet-related and how much is caused by environmental contaminants? I would love to hear your response. Cheers, Helen."

Robb Wolf: Great question. I think it was Dr. Reeds who had some pretty cool information recently on study of Egyptian mummies in which they look at the relative disease rates among these mummies and it's well understood that in these Egyptians, particularly the higher echelon Egyptians that were mummified, we saw tons of cardiovascular disease, glucose intolerance that is essentially Type 2 diabetes. But what they didn't find a lot of was cancer. So what we definitely see is some metabolic arrangement likely born of higher carbohydrate intake typified by the transition into an agrarian type of diet. We saw all kinds of bone malformations. We see increase rates of different communicable diseases from living in close quarters and probably suppressed immune function due to mineral and vitamin deficiencies from eating this kind of low quality agrarian diet. But it's interesting that they saw virtually no cancer in these individuals. So this was one of these situations in which, you know, it shined a light on the potential that environmental toxicants maybe more the causative factor in some things like cancer, but we definitely know that some of these diseases of affluence like cardiovascular disease, Type 2 diabetes and what-not are absolutely driven by our food. So I think that there are probably multiple pieces to this and you can't discount the influence of environmental pollutants. I would put photo exposure in that category where you know for a fact that excessive light exposure decreases insulin sensitivity, increases likelihood of various types of cancer. Lights out goes so far as to claim that with adequate photo period that it's hard to even induce cancer in various types of creatures like mice. I would have to revisit that specific study and do some looking at it, but there's certainly a bunch of environmental things that have changed including various toxicants, plus the seizures, the amount of light that we're exposed to, and then also the types and amount of food that we're seeing. I do think it's kind of funny that most of the people that I see making a lot of squawking noises about pesticides and different things like that are generally not eating all that well to start off with. People are frequently opting for like organic bagels and stuff like that in lieu of eating conventional raised meat because of some perception that they're decreasing their toxin load or something and I think they're really missing a lot of points with that. But an interesting question.

Andy Deas: Bagels are good, Robb, do not put down bagels.

Robb Wolf: Do not bad-mouth the bagels.

Andy Deas: Next we have a question from David. "Robb, thanks for doing these podcasts. The book is sweet. I was wondering if you had any advice for someone who is overtrained. All the info I can find is about how not to overtrain. Yes, yes, good, good, but what if I think I'm already overtrained? My eating is strictly Paleo with a few days here and there where I mess up. IF for 12 to 14 hours per day most days. I think I get enough calories now with a big post-workout meal of 30 to 50 grams of protein and two sweet potatoes but I wasn't eating post-workout for a while and I think it messed me all up. For the past year I haven't gotten much stronger, actually weaker in some key lifts, and I don't sleep that well anymore. My caffeine intake varies. I try to keep it to one big cup of coffee in the morning, but in some weeks I do more than that. Sleep between 5 to 10 hours per night, usually closer to five but that is the result of poor sleep, not lack of time spent in bed. I train between four and six days usually strength/metcon/rest/strength/metcon/sprint/rest. Any help is appreciated. Do I need to take a month off? I think I might go crazy. Thank you."

Robb Wolf: So yeah, I think we might need a tranquilizer dart for David. We need to zing him, throw in that over him and take him to the Canadian outback or something and let him rest and recoup. There's a lot of concerning features to this, but I guess probably the biggest one

is the fact that we range anywhere from five hours of sleep up and I mean that's just not enough and we know that self-described – the lack of sleep, the under sleeping is because you can't just fall asleep or can't remain asleep, then we've got some serious problems going on with that. So I would take whatever amount of time off that you need so that sleep starts normalizing and you go to bed and you sleep well and you wake up rested and all that sort of stuff. It doesn't mean that you would have to completely do nothing, but I would maybe do some swimming and nothing really structured with that. Just kind of paddle around, sit in the hot tub, do some walking, do a lot of stretching, do some mobility work, stay active but nothing in the gym, nothing really structured. And then when you get back in the gym I would really re-evaluate how much time you're spending in the gym and what your goals are. I just can't tell you how many people benefit from two days better than three days, three days is way better than five days in the gym. I wish it wasn't the case for me but, you know, you really need to keep an eye on your recovery and what the overall focus is. If you're actually going backwards on the key lifts, this is a bad deal. We want that stuff moving forward and obviously it doesn't move forward forever, but we started seeing some significant backslide and it's sounding like probably you're not feeling well overall then we have some problems brewing with all that stuff. I would get the sleep dealt with, re-evaluate the training, keep an unload week in there every three weeks or that kind of five through one wind or rest type of stuff, and then I would also re-evaluate the intermittent fasting. That is for program optimization with people who otherwise have their ducks in a row and it absolutely can be way too much especially if you've already got some recovery problems.

Andy Deas: Thank God, Robb. Step away from the intermittent fasting.

Robb Wolf: I think it's the best thing in the world when it's appropriate, and I think it's the worst thing in the world when not. So you just need to keep an eye on all that stuff.

Andy Deas: All right, good. Take some time off, brother. You'll be okay. I'm excited for the next one, Robb. I'm interested to hear your take on this. A question from Adam. "You can only do four main lifts for the rest of your days on earth. What do you do? Hopefully I'll hear the words triple and point here. Thanks, dudes." Oh, man.

Robb Wolf: Does the sprinting counts as one of these?

Andy Deas: Hmm. That's a tough one, Robb. I don't know.

Robb Wolf: I'll put sprinting as a wild card. Maybe it works, maybe it doesn't. Then from there I would, and possibly not even in order. If I would order this out maybe a Power Clean, push stress, a back squat, and a rope climb.

Andy Deas: Wow. I like it.

Robb Wolf: So like Power Clean because you've got kind of a full body rate of force development kind of gig, it teaches you how to accelerate a moderate to heavy load, teaches you how to receive it. Great for full body integration and power development. I really, really dig the push press because it's teaching you how to transmit force from the lower body into the upper body but you're getting a really significant growth stimulus of all the pressing musculature, the elevation of the scapular via the traps, the last dealt involvement, triceps involvement, serratus anterior. You get some external rotation so you can have some potential therapy on like the rotator cuff and stuff like that can be metabolically demanding if you want to program things appropriately in that direction. Back squat just keeps to be kind of the overall kind of bad ass lift, and with the Power Clean we're getting at least some posture chain activation depending on how we navigate the back squat and we could either be more quad or posture change dominant on that. The rope climb in lieu of the way to pull up, because I think given the different variants that you could do on the

rope climb like you could not easily but with a little bit of tinkering progress yourself up to being equivalent to one arm chin ups on the rope climb both using eccentric and concentric movements, and I mean once you're at the point where you can one-arm chin I don't know how much more strength you really need or could even derive out of a weighted pull-ups. I like the grip developments, I like the fact that you can start that movement in a fully pro-needed position and then finish in a supine position. So huge range of movements, tear is minor, tear is major involvement, lat involvements, flexor compartment involvement in the forearms, huge grip components. To make the Andy Deas' of the world happy, we have a unilateral pulling movement and you can even get some scapular retraction in there if you're really working on it well. That would be mine. How about you, Andy?

Andy Deas: I actually like those although I think for me, and I know the Clean, I guess technically I just always prefer the dead lift or the back squat. I think that's just how we're built.

Robb Wolf: Right, right. Yeah, yeah. Look at the two of us, so we actually.

Andy Deas: But technically with the Power Clean, you get some of that. I like the Clean, I like the push breast or actually I did a bunch of jerks yesterday. It's been a long time since I did any push jerks. So similar idea. Rope climbing is a nice choice. I was actually going to pull-up, but I think you may have made my decision for me. I like it.

Robb Wolf: Yeah, yeah.

Andy Deas: And I like the sprinting wild card. I have no big disagreements because if we're only saying, well, I've got four lifts, I'm on my single leg unilateral stuff. Isn't that going to make it in the only four lifts? I could it for the rest of my life.

Robb Wolf: Well, especially if you've got that option out there of doing sprints.

Andy Deas: Yeah.

Robb Wolf: Like I think you get so much hip development, so much potential for balancing unilateral issues and stuff like that. God, it's just hard to develop. Beat the power development and the integration you get out of sprinting.

Andy Deas: Yeah.

Robb Wolf: Just hard to do especially if you start working in sprints that involve change of direction drills and stuff like that. Really quickly, you know, I don't know that you get a program optimization out of this but you could build monsters with a program that abbreviated some smart loading, circuits, whatever you want to do with it. You don't need a lot of movements. You just need to have them done well and switch in the variables up in a smart way.

Andy Deas: Did you say the words triple point, Robb?

Robb Wolf: I did not, but I'll say it now. Triple point.

Andy Deas: It reminds me, Robb, of my old life. When we'd give core presentations we'd make a bet of some wacky phrases to throw in there and whoever could get it in there would win the pool, it would be like someone needs to say the phrase cracks of the jacks to position and have no one call them out on it.

Robb Wolf: We used to try to work that stuff into level one search.

Andy Deas: There you go.

Robb Wolf: Various shenanigans.

Andy Deas: Same idea.

Robb Wolf: Yeah.

Andy Deas: Good question, Adam. Thank you. Next we have a comment from Yolanda. She says, "After one to two weeks eating Paleo, I've noticed that I don't feel like a champ. I've felt nausea, minor headaches, chills and general unease. I assume this is some type of withdrawal and body adjustment. Is this normal and how long does this period last? Many thanks."

Robb Wolf: I just have to comment that there was a girl in my high school named Yolanda that I had a massive crush on, but I also gave her cramps, withdrawal syndromes, and general malaise. So there may be some sort of connection with that. This is totally normal. Really it just depends on how far off the, you know, how dirty was the diet before. Was there a ton of carb? Was there a ton of sugar? You know, a lot of wheat. The more kind of pro-inflammatory the diet was, potentially the worse the adaptation is. It can run a month, two or three weeks for sure, upwards about a month. Usually that two-week chunk is possibly the worse. It seems like about three days in it's pretty bad, two weeks can be still pretty bad. But it really depends on who you are and what you're coming in with and how good you're being about hydrating, getting good quality sleep, if you're talking some fish oil. There are some other things that you can do that will kind of help with the stuff out, but I think it's pretty standard unfortunately but again it's kind of reflective of how far off base you were to start off with.

Andy Deas: Can we steal from Atkin's world and call this the Paleo Flu? Like they have the induction flu, Robb.

Robb Wolf: Yeah. We can do that. We can do that. You know what? But the thing is instead of -- I tend to purposely downplay that because it seems to freak people out and they get all primed up for feeling like duke and I think enough people were sick enough before they start modifying their food that some people, even though their pretty off-based, also they end up feeling better immediately too and so that's where I'm hesitant to really psychologically prime people like it makes sense that the person, you know, Yolanda is not feeling good but I've also seen people who are living like cockroaches who started feeling better immediately like within two or three days, like we have tons of people comment that way on the blog. So it seems kind of split. If we had some more metrics, if we're really tracking our case, it's kind of a gluten deal, that it seem to be a metabolic arrangement deal where people are already sleeping well. You know, we might be able to track sounds, some better variables as to what is that hard here but yeah, we could probably call it Paleo Flu but I'm hesitant to play that one up too much.

Andy Deas: Fair enough. Next we have a question from Future David. He says, "This will be short and sweet." I'm going to answer and just note, probably not the answer but the question is short, David.

Robb Wolf: It seems to be in burst, yeah. Yeah.

Andy Deas: "What do you think it will take to make Paleo dieting mainstream? Is it supporting evidence? Is it refuting evidence of current clinical beacons? Is it the need of a public ambassador, i.e. Oprah, a politician to get the corn industry out of their pockets? What say you? Keep up the great work, fellows. Future David, the future version of me. Thanks to you dearly."

Robb Wolf: Cool. That's a good handle, although the next handle is possibly better. It's a really good question. I think potentially a little bit of all of that stuff. If we add some sort of a big celebrity figure, like Oprah, comes in and say, hey, this is really the way to go, then we would at least crack open the floodgates of a lot of people giving it a shot and then we certainly... You know, there are so many kinds of whacky special interests. We had lunch with a friend of ours who is a farmer and he is just a really sharp dude, a really smart guy, and the amount of chicanery that is involved in subsidies, subsidizing grains, subsidizing a bunch of the long shelf life foods that we are all kind of subjected to, it is stunning. King Corn is a great movie that kind of looks at all the stuff. We have a massive governmental complex that's involved in paying people not to produce food and then subsidizing the food that they do produce to maintain an arbitrary price and stuff like that, and then all of the stuff gets converted into highly refined food and fed to a cattle which makes the cattle sick and messes up the Omega 3 and Omega 6 imbalance, although later in the talk we'll look at some of that stuff. But there's just a lot of different layers to all this. I think one element to this is probably at some point, probably sooner as opposed to later, somebody needs to re-brand the Paleo concept and not call it Paleo. It needs to be like Clean Eating, but clean eating with an understanding of what that actually means which is not grains, not legumes, not dairy, not low fat. So that's part of the problem. The thing is that this Paleo thing as just a baseline really isn't particularly sexy. It's got a lot of kickback from people. You get a lot of pushback whether it's the Discovery Channel level of understanding, know it all. They think that they understand a lot of evolutionary biology or anthropology because they have like one class on the thing, or yeah, people that are uncomfortable with the concept because of like religious beliefs or whatever and so there needs to be some way of re-branding the whole concept in a way that's basically like this is the healthiest way you could possibly eat, it works with your genetics, but we're not talking cavemen, we're not talking loin cloths or speeders or any of that because the whole concept just immediately -- I would say some people buy into it and I'll throw out there that it's usually the smarter people who buy into it initially but that starts sounding incredibly great, the last minion, and so I'll not run down that road too far. But, you know, some people buy into it as many people though are put off by the whole concept and so there needs to be some sort of re-branding of the whole thing that's just basically like this is a smart, clean, nutritious way to eat and maybe some of the work that Cordain has done where it's basically like you can't eat a more nutritious meal plan. By the inclusion of grains, legumes and dairy, you end up decreasing the amounts of vitamins, minerals, and antioxidants you get per calorie and somehow you re-brand it as the most nutritious diet you could eat per calorie or something like that and somehow what we'll end up doing is understanding of like grain intolerances, Omega 3 and Omega 6 imbalance, modulating insulin sensitivity. But all of that somehow needs to be made more mainstream, more sexy and remove all the emotionally charged elements of the concept, and maybe in the background it's kind of like all these ideas based on Paleo and nutrition but that's not the forefront. You're not whacking people over the head with that. What do you think, Andy?

Andy Deas: Well, I was just thinking did you see the article someone posts in our Facebook? The Rise of the Power of Vegans.

Robb Wolf: Yeah.

Andy Deas: You have like a Bill Clinton and Maluf, and it's funny because this reminds me of my brother's girlfriend who works for one of the Maluf brothers because he's now in Vegas and like because he is now vegetarian they put vegetarian meals on all the menus in his restaurant and he's also like handing out DVDs that are available to some of the employees to learn about the vegan way. So where is our power Paleo person, Robb? That's what I need to know.

Robb Wolf: You know, Professor Cordain and I have been talking a bunch about like the Paleo physician network and we've got a bunch of infrastructure being built and developed with that, and there are some really big movers and shakers. I was just on a phone consult today with some folks from Florida who are very big politically in Florida, have been big politically in the DC Beltway area and it's interesting. You know, it's tough to get more connected or globally visual than a Bill Clinton type figure, but there are other figures out there and the thing is what this is going to boil down to in large part is okay, the vegan camp has some claims about what works and then kind of this Paleo type camp has some claims about what works and we can compare these things head-to-head and look at biomarkers in health and disease, see how people perform and all that sort of jive, and I'm pretty confident that what we're putting forward here is going to stamp a hole in the pennies of the competition. You know, you know that you're winning is when they start attacking your credentials, when they start attacking you as a human being and all the rest of that which is in large part what we saw with the protein debate between T. Colin Campbell and Loren Cordain. In short order, Campbell and the folks kind of in his camp were going after everything except the science and so I think that that's kind of a direction that we can take this thing. But there are a ton of people like the folks that I was talking to on the phone today, they're in very tight with the Alzheimer's research scene basically nationwide and there's a whole huge group of people who yield more money and more influence than any generation in history and is basically the baby boomers and these folks don't want to get old, they don't want to die and they don't want to lose their marbles. I'll tell that going high carb, low fat vegan is not going to stave off Alzheimer as good as low carb, high protein, high fat Paleo and we can start comparing those numbers really, really quickly and see which ones of those things wins out. When we start seeing some pre-market shift with that, we have a potential to literally sidestep or step over this whole oil grain pharmaceutical conglomerate and go directly to what the source is. The interesting thing in a very libertarian, very free market kind of scene, if people simply give one of these methodologies a shot and try high carb low fat vegan for a month or two months or six months, how do you look, feel, perform? How do you track biomarkers to help in disease and see how you do. If you try a grain-free, dairy-free, legume-free Paleo stick, do the same deal, look, feel, perform. Track biomarkers to help in disease wherein you see some really different outcomes. It seems to side pretty favorably with the Paleo side and I think you starting getting a big enough pool of people who yield enough power that they can start changing things. But the thing is it's not going to change from the top down. It's going to be a market-based deal that pushes from the bottom up. What we need then right on the heels of that is a credited educational system that recognizes the whole Paleo revolutionary biology concept as a legitimate contender in this whole thing, which we're working on all that stuff too. Because what they will do, what the grain lobbyists will do, what the main governmental lobbyists will do is they will start then coming after crusted meat producers, they will start trying to outlaw stuff like that. There will be some sort of health code violation concern associated with the stuff or something. You know, all kinds of goofy things will go on if we're not kind of politically organized and we don't have a governing body to drive this thing forward. You are right, this is not a short or sweet answer.

Andy Deas: I helped in that a little bit though.

Robb Wolf: Yeah, yeah.

Andy Deas: Power vegans.

Robb Wolf: Power vegans, yeah.

Andy Deas: It's just a catchy name for an article.

Robb Wolf: It's totally is.

Andy Deas: Anyway, moving on. Handle the weak, Robb. A question from Evander's Sixty Fry.

Robb Wolf: This maybe the handle the century.

Andy Deas: "I love the podcast, I love the book, sending copies to parents, friends, other loved ones, etc. I wrote in a few weeks ago with a question on IF before/after cheat meals and I've dropped five to eight pounds since then not because of your answer regarding IF but because you laughed/scoffed at the fact that I was regularly eating pizza. I realized how ridiculous I was being in that regard. If you're eating pizza once a week, you're doing it wrong. I genuinely thank you. Why wouldn't I just go the extra mile, not that hard, to get the full benefits of Paleo? I was you could create a Robb Wolf automatic response system for questions like mine that just picks up the world "except for" and crafts a Wolfism and answer for you. Question: I eat full Paleo except for pizza once a week. How can I better lose weight? Auto Answer: Holy cats, stop eating pizza once a week. Question: I live full Paleo except for not sleeping in the dark. How can I feel better? Auto Answer, Six listeners, stop sleeping in the dark. The grammar may be weak, but let me know what you're going to do with all of your free time."

Robb Wolf: I dig it. It looks just spot on with like some sort of Google, the Google translation deal. Grammar is just dodgy enough to be like, okay, maybe there's something to this. I like it, I like it.

Andy Deas: All right, moving on. He says, "Info: Maybe irrelevant, but just FYI. Age 35, male, 195, six feet, body fat just north of 10% gaining on sub-10%. Body comp is primary focus. I figure health/longevity will generally come along with that. The question is whether a..." Pronounce this one, Robb...

Robb Wolf: Glutathione.

Andy Deas: "Glutathione..." Oh, I haven't heard that term in years. "Supplement is a crazy idea. If it is not a crazy idea, is the company selling the stuff full of bologna about their phase one and other clinical trials? Details: I read Art Devany's site and he's long used Ultrathione, banded glutathione supplement, and I think Art generally researches his stuff pretty well. So I went to www.glutathionescience.com..." Who would have thought that that's a real website? "And poked around a bit and there do seem to be studies on the site supporting absorption of their product, and studies showing the ability of their supplement to address health problems, AIDS, Cancer, Alzheimer's, etc. Still my BS sensors still seem to be flashing red and I was wondering if your trained eye could figure if the product is: A) Total BS, maybe dangerous. B) Not BS, but not worth the money for a healthy individual. C) Unknown, better to stay away. D) Expensive, but maybe beneficial. E) Others." Robb Wolf, go.

Robb Wolf: E) Others. Really an interesting question. If there was one antioxidant, glutathione is a naturally-produced antioxidant. Produced in the liver, it works in conjunction with some other antioxidant systems like super oxide. It just mutates all these things to get charged and recharged by things like Vitamin C and Vitamin E. When we first kind of rolled onto this free radical theory of aging and free radical theory of disease, it had some outgrowth from like oxidative damage from different cooking products and from oxide ionizing radiation and stuff like that, and so the thought was, hey, why don't we just take mega doses of antioxidants and then we should squelch all of these free radical productions and we should see a decrease in disease and increase in lifespan. It will double or triple average lifespan. The unfortunate thing was that we saw nothing of the sort. These mega dose antioxidants, whether it was Vitamin C or Vitamin E, never really worked out. We never saw any real benefit. We seem to get some benefit from food levels of any oxidants particularly from like meat associated carotenoids, various antioxidants in fruits

and vegetables, stuff like selenium out of the various types of nuts because selenium is super important in the production of glutathione. But we haven't really seen any benefit from any oxidant supplementation. But in different animal models particularly with fruit flies, there have been some gene manipulation experiments in which they give triple or quadruple gene expression of the glutathione production for these fruit flies and the fruit flies end up living a ton longer. So it's kind of interesting. There seems to maybe be some potential from mitigating oxidative damage, but you need to do it in a way that doesn't suppress the normal adaptive elements of like exercise and free radical production, but you don't want too much free radical production to happen. So that's all that sort of stuff. So the big problem for a long time has been that glutathione it's cells are made up of sub-fractions which are typically broken down during the digestive process. Those things can be reconnected and delivered, but it wasn't really all that compelling in gigs to post it that you could supplement with glutathione and then see increase glutathione levels in the body. These guys are claiming that you can, they seem to have a delivery system that seems to work. So the long story out of it is I would put this as the expensive but potentially beneficial, but with a really big caveat that the more and more and more that we dig around looking at supplement levels that are super physiologic, the worse and worse things we see. I'll be talking about more of this stuff in probably three to six months. We have some stuff that I'm going to roll out talking about super physiological levels of supplementation and some problems with that with regards to health and longevity, potentially even cancer propagation. So I would tentatively put this under the expensive but potentially beneficial only because I've seen genetic manipulation of glutathione production results in some animal models in which we see significantly increased longevity and health in these craters. So if we have a way of directly supplementing glutathione production so that we have higher tissue and circulatory levels of glutathione, then maybe we've got something that is beneficial but potentially not harmful. But I'm holding out, reserving the right to change my mind on that because I don't know for sure that it's not harmful, but I will say most other high dose antioxidants supplementation I would generally label as potentially harmful.

Andy Deas: All right.

Robb Wolf: How do you like that?

Andy Deas: How do you like the damn apples?

Robb Wolf: It's good, dude.

Andy Deas: I think you tried to make it easier by giving you multiple choice and good luck with that.

Robb Wolf: It was good though.

Andy Deas: Man, Art Devany. I like it, all right. Next we've got a question from Troglodyte in Training. Good handle. "Hi Robb and Andy. Insert the usual 'you've changed my life' testimonial, blah, blah, blah here and many thanks for everything. You guys rock. Given how my body temp and energy levels have changed with just a short stint of going Paleo, I get a lot of questions from my friends and there's one in particular who has some fairly tough questions that are way past my extremely limited ability to answer. Hence, this little symbolic trip to the see the guru." My Lord. "My friend has a three-year-old son who has Prader-Willi Syndrome. For those listeners who may not know what the heck Prader-Willi is, it's a generic disorder related to Chromosome 15 that affects a few things with the hypothalamus, not the least of which is appetite regulation. Allegedly, someone with Prader-Willi's will always feel hungry and never feel sated. There are also other effects such as delayed puberty, muscle weakness, sleeping disorders, learning disabilities. The list goes on. This friend has been keeping her son relatively quiet between meals by giving him completely carb-licious snacks, animal crackers, rice cakes. These can't hurt.

They're just air, right? Saltines, you name it. Needless to say he's getting to be obese and according to the extreme scientific diagnostic tools I carry around called my eyeballs, well on his way to a short lifetime of diabetes. In the past, Google has been able to help me as your handy hunt and gather search box turning up not very much info. I did find a link to Dr. Cordain's website discussing a testimonial from someone with Prader-Willi, but there's literally just a paragraph there. So basically I'm clueless on what advice could possibly be given for someone with this condition. How effective would the Paleo approach e for someone with Prader-Willi? How many of the associated symptoms could be mitigated at least in part by eliminating glutens, lectins, and the ubiquitous sugar overload from the diet? Is it possible to give them some semblance of a satiety signal using Paleo only foods? If not, would you recommend their in-between snacks to be limited to protein, fat, veggies or a combination? Any help would be greatly appreciated. Thanks again for everything you do."

Robb Wolf: It's a good question. So let's think about this in a couple of different ways. On the one hand, let's just ask a question when do we, in a non-genetic disease scenario, when do we see people who either completely or partially lack the ability to regulate appetite and eat in metabolic arranged scenarios. This is some of the basic problems arising. We have elevated gluten levels, elevated lectin levels, lectin resistance, we get decreased peptide YY which is a protein appetite regulator, adiponectin, cholecystokinin. All of these things get affected negatively when we are in a hyper insulin state and this seems to grow largely out of leverage arrangement, that leverage arrangement is probably mainly driven by fructose, on Omega 6 issue but obviously we can overwhelm that system at some point given the adequate intake of even non-fructose containing carbohydrates. I would put some Omega 3, Omega 6 imbalance and some sleep disturbances in that too. So we can construct Prader-Willi type symptoms in which individuals eat and eat and eat and eat and they're always hungry and they never have any adequate appetite regulation. So if we can do that by eating the very food that this woman appears to be feeding her child who already has a genetic predisposition to not regulate appetite, then I would say we're doing absolutely nothing to potentially mitigate the problem. Now whether or not this would 100% addressed this, whether with 5% address it, I don't really know but there's no doubt if there is some ability to regulate appetite then you would probably see an improvement in that regard by feeding this individual the food that actually produce appetite suppressing type of result which is higher protein, higher fat, lower glycemic load carbs and that whole thing. So I think that that's one piece of the puzzle. Another piece of the puzzle is even if we don't get spectacular appetite suppression, it might be good to feed this individual in a way that doesn't create overt metabolic arrangement because of the refined carbohydrate that has been taken in. So I think in general you could make the argument that if you're going to overeat, you're generally better off overeating healthier foods than you are with refined carbohydrate type of food. Then there's another piece to this. When you start digging around a little bit, correlation, causation, all that sort of stuff gets really murky but there's remarkably high incidences of celiac disease of transglutaminase activity with individuals with Prader-Willi and so I wouldn't be surprised if we have some sort of autoimmune type precipitating issue that is occurring in the Prader-Willi situation. The reason why I would pretty confident with saying that is that we see exactly the same sort of scenario play out with Huntington's disease. Huntington's disease is a DNA base pair repeat disease that creates amyloid plaques in the brain and it essentially fatal, but what we are theorizing now is that the precipitating issue with this is not an immune reaction related to transglutaminase sense on. So there's really no way you couldn't slice or dice this thing and make a solid argument for, at the very least, giving a grain-free, dairy-free Paleo diet a shot. Grain, legume, dairy-free. You know, you're changing the nutrient quality. You're potentially improving appetite satiety and there may even be a precipitating issue with this. Even though this is obviously a genetic disease, we have deletion of some of Chromosome 15 that's happening in this situation, but there may be a potential that there

is some autoimmune complication going on that maybe making it worse, that maybe tripping the main problem with this whole thing and it's as simple as giving the whole situation a month, give it a shot and see what happens.

Andy Deas: Good answer.

Robb Wolf: Whatever result you get, good or bad it will be really interesting to know that.

Andy Deas: Yeah, for sure. That would be really helpful.

Robb Wolf: Yeah.

Andy Deas: All right, Robb, we've got a question from Andy, unfortunately not me so that maybe better or worse for you.

Robb Wolf: We'll see.

Andy Deas: "Robb, I work as a nurse in Houston. Come here for the book tour. Part of the job is patient education. I have been Paleo/Primal for some time now, 80% compliant. I dropped from 220 pounds to 172 pounds so I know first-hand the effects and results Paleo life gives. I, however, have a hard time relaying this to patients. I can't bring myself to telling them go low fat, whole grain or I feel like I need to add see you again soon. I heard the whole elevator pitch, but unfortunately our elevator doesn't go to 153 floors. Do you or Andy know an effective way to tell a patient that low carb, good meat, good veggies is the way to go?"

Robb Wolf: That sounds pretty good.

Andy Deas: Not to the new teacher, Robb.

Robb Wolf: You know, I think coaching this whole thing, and this is maybe -- I've been thinking about this stuff a lot like I'm trying to refine what information we have on the website, how to serve people better. I have some ideas for making everything like a graphical interface so it's like pictures, almost like a pop-up look kind of gig so taking output, the same information we have but just re-cooking it in a different way for people to interact with, but I think just basically telling people that if they eat lean proteins or just proteins in general, throw lean out there, I know that pisses people off but just say lean and then people will still eat ribs. It doesn't matter. Just say lean because then it shuts down all of the knee jerk reaction about like fat and cholesterol and all that sort of stuff. So just say lean and just know that it doesn't really matter all that much. Lean protein sources, lots of vegetables, good fat, and a modicum of fruits and what we're trying to do is control insulin levels and try to reduce inflammation. This is an anti-inflammatory diet, call it the anti-inflammatory diet. People seem to get excited about that and when they say what about grains, and you say no, grains are pro-inflammatory food. They cause increases in C-reactive protein relative to fruits and vegetables so we're going to get your carbohydrates from those items and kind of decrease the grain intake. I think focusing on the anti-inflammatory effect. Nicholas Perricone got huge mileage out of this concept. Everything he recommended -- he's the skin doc, the Perricone prescription. I think he just had a book out called Forever Young. It came out the same week that my book came out and he largely pushes a Paleo sort of stick and he coaches the whole thing in anti-inflammatory deals. So good amounts of protein, low glycemic load, Omega 3 and Omega 6 balance, and there you go.

Andy Deas: All right, give it a shot. Let us know how it goes.

Robb Wolf: Yeah.

Andy Deas: All right, Robb. Question of the day. Are you ready?

Robb Wolf: Dude, this one is a juggernaut. Can we skip this one?

Andy Deas: We can. We can do it next week.

Robb Wolf: We'll do it, we'll do it. This one is going to hurt though, man.

Andy Deas: Question from Bethany. "Hi Robb and Andy. Two questions. One, how long does it take for one's gut to heal after you stop eating grains and legumes." Go Robb.

Robb Wolf: Usually two to three weeks you get a pretty good recovery. I would say a whole month if the person is pretty sick. But this is assuming perfect compliance, taking probiotics, eating well, sleeping well and all the rest of that stuff. It could be months, years or not at all if people are farting around not really complying with stuff.

Andy Deas: Yes. Okay. "Question two, detailed Omega 6, Omega 3 ration question. See below. I'm writing my thesis on Omega 3 and I came across the USDA nutrient database. Here you can look up the detailed nutrient compositions of any food. According to this database, the ratio of Omega 3 to Omega 6 is in grain-fed versus grass-fed beef seems confusing to me. They list lots of long and short chain omegas as undifferentiated. I'm guessing this means they are conjugated. The grass-fed search shows results of the same fats, 18:2 for example, to be differentiated as Omega 6, whereas on the grain-fed, they apparently just don't know. The problem is that all these undifferentiated fats makes up the bulk of the fat present, Omega 6 and Omega 3 in particular are barely even there at all, under 20 mg per 3 oz serving. So how much Omega 6 and Omega 3 is really in this stuff? Furthermore, if we are dealing with CLA, I can't tell if that is a good thing or a bad thing." Do I keep reading, Robb, or you just want to go prrt.

Robb Wolf: Oh, yeah. Keep reading. I'll be slitting a wrist.

Andy Deas: Okay. I'm not going to read what the database says. "These findings confirm that grass-fed is a better choice but not necessarily by providing much Omega 3 though you are avoiding some Omega 6 by [unintelligible] up for the good stuff. I hate taking fish oil, taste, swallowing pills in general, burping, but I know that I need it as I'm still not terribly insulin-sensitive, holding 10 to 12 pounds of fat in my abdominal area. I'm lucky in that almost all of my protein is from very healthy animals. What am I missing? Please explain these breakdowns of if you think the USDA is so bass-awkward that this database can't be trusted in the first place. I'm just a long-winded geeky Paleo person trying to figure out exactly what I'm getting or avoiding if always sticking to grass-fed. How much supplemented oil I need to suffer though every day. Thank you so much, Bethany."

Robb Wolf: Bethany, he got a way... Do you want to know also?

Andy Deas: Fine. "I couldn't link to my actual search findings, but just search ground beef in order to come up with a list of options."

Robb Wolf: Okay. So this stuff just gets like mind-numbingly complex and this is a bunch of stuff that I did with the lipid metabolism research which is trying to compare or figure out what the fatty acid profiles of red blood cells were, and the thing is that you end up with these things that are relatively large organic molecules that had really, really similar structures, really similar chemistry and physical properties and the ability to distinguish one from the other is pretty challenging. This is where a bunch of the USDA information like when they say undifferentiated it means that the assay that they were using is not really sophisticated. This is where if you look at some of the work that Cordain has done and

even some of the work that grass-fed meat producers have put out there, we have some better quality, more sophisticated assays that are performed that are able to distinguish the different types of 18 carbine fat that have three conjugated points, three double bond points or more double bond points, and so these things are very, very difficult to usually distinguish so you need some better data to come out of that. The USDA database is pretty good, but when you want to look at the real breast tax of this stuff it doesn't show things in quite the right light that it should. I would look more if some of the information that Cordain has on like the full body rendering of ruminants but then that's not exactly the same as what it is in cattle because the cattle just ends up eating different things and grass versus wild plants and take this a little bit different. But the bottom line here is we've been all around this thing and for a long time my idea was try to feed people as Paleo as you can and people like eating nuts and seeds. Nuts and seeds have a lot of Omega 6 so we'll balance the Omega 6 with a lot of fish oil and that works actual point but then we start seeing problems, gut irritation, we saw some other systemic inflammation that's used that looked a whole lot like Omega 6 over consumption, and so we start modifying the message and saying, well, maybe we should reduce our Omega 6 intake even from nuts and seeds. So we kind of make that a recommendation. We saw some improvements in folks, and now I think we're seeing that the consumption of Omega 3 at significantly high levels for long periods of time may not be as good for us as what we had hoped because it lacks data damage and maybe some other issues. So that's where if we are largely consuming grass-fed meat and not large amounts of Omega 6 inputs, then we should be okay at the end of the day. We know that these ratios end up being about what we need, you know, a 1:1 or 1:2 ratio, and then we're pretty good on that. So the exacting amounts aren't quite as important as just knowing the grass-fed meat comes out in approximately the ratios that we need, the stuff is going to vary from location to location, the seasonality of what the food was that the creators were eating, whether it was grass versus wild forage, like there's just a ton of different variables within all that and even the different types of cattle. So there's more variability than we have consistency in that other than if we mitigate Omega 6 intake and then largely get our food from grass-fed sources ideally then we're doing pretty good with that. So other than that, for me like if you really wanted to be tight about this, we need to start looking very situationally at the specific assays that are used to analyzes the particular meat, look at what conditions it was fed under, and then we can start to actually getting some meaningful results out of all that jive.

Andy Deas: Yeah, yeah. All right. It's over for us, Robb.

Robb Wolf: We need it, we survived although we had people like drive off the road trying to end that one.

Andy Deas: Boy, it must be...

Robb Wolf: That is definitely a...

Andy Deas: Next we have a question from Jenna. "I wanted to start by saying that I just finished your book and I was so inspired. My pantry and refrigerator are now officially Paleo and I have started my 30-day journey. One question: About how much water should I be drinking? I usually am able to get in the recommended 64 ounces, but should I be trying to drink more? Just wondering what he recommended daily intake of water was from a Paleo perspective."

Robb Wolf: You know, I maybe a little bit on the skinny side of this but I kind of just recommend to go with herbs in general. If you're pretty active or living a relatively dry climate, then you probably need to stay ahead of that a little bit like it's kind of a funky feeling like I think on the one hand some people maybe go too wild on the hydration side of stuff and maybe like we're talking about earlier, maybe we just need some better electrolytes in the mix

and then people would retain the water that they need better. But then on the other side is I know that I've frequently had situations where I'm just not feeling all that good and I'll drink a couple of glasses of water and it's like somebody just completely turns the lights on at me. So I know that you can get dehydrated. You can run around with some kind of low to moderate level clinical dehydration. People just go I think a little overboard on this and I think you start running into problems where you're maybe diluting digestive enzymes because you're consuming a ton of liquid meals and all that sort of jive so I would just maybe drink a little bit preemptively but mainly just kind of follow thirst. Again unless you're really active or you're in a super dry climate, I just don't see the need so just like act like you're a lawn and you need to be watered constantly.

Andy Deas: A lawn.

Robb Wolf: Andy, play lawn.

Andy Deas: I know. That's very easy for me to do, Robb.

Robb Wolf: Yes.

Andy Deas: All right, fair enough. Last question, Robb, question 12 from John. "Good day, Robb and Andy. Firstly, thanks just does not cut it in terms of how much I appreciate you alerting me to the Paleo diet. No more lifelong sinus problems, goodbye gut problems and seasonal hay fever and hello increased energy, vitality and exuberance. A six pack of kick arse Aussie beer, gluten-free, awaits your arrival in Oz."

Robb Wolf: Sweet.

Andy Deas: "Question: Some topics in Episode 42 really resonated with me. That being training for health and longevity and pursuing a sport activity to enrich one's training and in the process enrich involvement and enjoyment of life. I have been following the health and longevity gravy train like a frigging zealot and have for a while now started to feel stale. While listening to your podcast, I suddenly realized how much I was missing out on and how much I missed getting my teeth into something, how much I missed the excitement and camaraderie of pursuing and being challenged by an activity. My pursuit of health and longevity had, I realized, become a burden and anchor. I'm a fit 41-year-old, 5'7", 65 kilograms, weight training about four days a week with a Bio Sig level two trainer which is giving good results. Podcast 42 has lit a fire under my arse and I now wish to indulge in life and it's physical bounty more. I live in beautiful, sunny Sydney so I'm spoilt for choice and seem t be suffering a little paralysis by analysis and what maybe an unhealthy aversion to any activity that even gives a whiff of being cardio. I have some friends trying to get me into ocean ski paddling with I'm attracted to because of my love for Sydney's beaches and harbors. Their training sessions go for an hour and they're an intense mix of LSD and more interval type burst/rest sessions. Quite a few of them enter monthly races of 10 kilometers or more. I would love to get your view on the pay offs health-wise of pursuing an activity like the above which is more strength endurance-based compared to other activities I find attractive and that I think would be just as rewarding such as surfing or some type of martial art. As the esteemed Keith Norris from Theory to Practice said we all have to choose our lives and our poisons, but the less poison the better for me as I get enough of that from my hereditary, cultural influence, and genetically enhanced addition to beer. Apologies for the lengthy question. I can't wait for multiple copies of the book and my dad's reaction when he starts to read his copy. He is a pig-headed, grumpy, old bastard but I still love him. So hopefully some of the info secretly infuses into his 74-year-old cranium. Cheers for all you do, it has been a life changer."

Robb Wolf: Awesome. Oh, man. This is a really good one. This is even maybe like a whole show topic in and of itself. Potentially you can't get into this mode where you're kind of like

okay, I'm searching out a balance of like performance, health, longevity. You go kind of a health and longevity bias and you're kind of kicking along. It's all good, but then you kind of wake up and you're like, wow, I'm not really challenged at all. You've created a remarkably a no toast kind of environment, and I think in the gym like I think we struggle with this a little bit as coaches trying to move our folks along, keep them excited, keep them challenged, but at the same time not break them and not subject them to the potential of breaking. But you know, there's kind of a reality in it. Art Devany used to write a lot of really good stuff about this and it's so unfortunate that he close his blog. I think that was just such a huge mistake going with that thing private and just get some great things talking about facing certain challenges in life, and I think for him like doing some offer on motorcycling and going on these long road trips and stuff like that that there was enough danger, there was enough challenge that made you feel alive. Maybe you crash the motorcycle or maybe you died, maybe you're maimed or whatever, I mean that would certainly suck and everybody needs to figure out what they're buying with that, then also at some point we're kind of like, okay, I may it loop to be really long other than the fact I'm so bored and I'm so unchallenged, I'm about ready to blow my brains out. That's kind of an interesting just a position of things that if you make things so easy on yourself, that there's no longer enough challenge. You're actually suffering as a consequence of that. It's actually a type of stress. I don't know where to the place is in this. I think that once you reach that point, do something that you love and love a lot and you could just burn for it and you don't care if you are broken and beaten up and maimed from the process if that's really, really what you love. Where I see this becomes somewhat problematic sometimes is that we have some people particularly out of the endurance athletics' crowd that I think maybe they're almost like some addictive type processes and you watch them from the outside as a coach just destroy themselves doing this process and it's kind of hard like you try to counsel them in a direction that seems more kind of life affirming and sustainable. That's certainly my bias in that situation so it's kind of a hard gig. I don't know. I guess under ideal circumstances you find something that you really, really enjoy that is relatively safe and you just get into it and you dig it. You know, look at some of these guys, Arnold and Frank Zane and Clarence Bass and some of these guys, they just dig lifting weights, lifting weights, do a little bit cardio and they get a rush off that. They get a rise off that particularly the aesthetic element, the physique element obviously, looking good and being strong and all that sort of jive. To some degree that's enough form, but there's some sort of concerted focus there. Clarence Bass, you know, every 5 years or 10 years, he ends up stripping down to his underwear or fig leaf for whatever and does a photo shoot and God loves him, he looks pretty damn good and that's enough of a motivator for him and that's cool. I totally dig doing jits. I'm trying to figure out how to get my schedule more dialed in for doing that. I love working on the blog and doing stuff related to the blog and there are links, but I'm trying to find some balance in my life where I'm doing some less cerebral stuff in like I'm just out doing things more. I'm kind of like, okay, I don't want to -- I've spent the last 10 years kind of shackled to a computer and that's great in a lot of ways. I guess it allowed me to do the life that I'm doing and I help a lot of people. It's just huge, but then at the same time I want to try to bring some balance to that like I want to be outside. I've been having similar thoughts right along this line like how do I just simply have some more fun. How do I keep doing what I need to do to provide food, clothing, and shelter and all that jive but then how do I have some fun and some challenge into my life that makes it exciting enough to really make it worth living. It's a great, great question and it's perhaps a surprising thing that you face when you get a well-designed diet and a nice, sound exercise program where you're kind of like, okay, this is cool. Now what do I do with all this?

Andy Deas: Yup. What are your thoughts on paddling, Robb?

Robb Wolf: I dig it. It seems good, it seems super fun. You know, if I ended up in some sort of a location where I could do some standup paddle-boarding or some of these other stuff, I

would definitely get into that. It seems like a ton of fun. I don't really like surfing all that much. I did it when I live in Southern California and I got dumped on my head, dumped on rocks, held under water, and I'm kind of a chicken sheet when it comes to that stuff and that's the point where my buying is that I'd rather snorkel, I'd rather do some other stuff that I got a little more control over my entry and exit into the environment versus like the surfing. It just keeps getting, oh, I need a little bigger wave, a little bigger wave and then it just -- I hit over my element rather quickly.

Andy Deas: Right.

Robb Wolf: But I dig the paddling. That seems like a good time and it sounds like a good group of folks who are outside doing some really fun stuff so that seems to go to me.

Andy Deas: Cool. There you go. That is a very challenging form of exercise. That's all I have to say.

Robb Wolf: Yeah, yeah. It sounds fun. It sounds like a ton of fun.

Andy Deas: Cool. That's it, Robb, Episode 55, an hour and 13 plus.

Robb Wolf:

Andy Deas: Yeah. Worldwide.

Robb Wolf: Yeah.

Andy Deas: Well, we will talk to you next week and thanks for your time.

Robb Wolf: Cool, man. Thanks, Andy.

Andy Deas: All right. See you, Robb.

Robb Wolf: Talk to you later.

Andy Deas: Bye.