

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 #59, The Paleo Solution. It is not raining in Chico today. How are you?

Robb Wolf: It's not raining, but it's overcast.

Andy Deas: Well, it's that time of year, man. As I told your wife when you guys got back from Hawaii, you know, it's stunning that it's actually even sunny here this time of year. So, you know, you got to take what you can get.

Robb Wolf: It's true, but I also like to point out it is winter here and I guess maybe that's difficult but I think I'm preferring like winter almost anyplace else just so long as there's some sun. It could be -50 degrees, but if the sun is out then I'm not scratching at the windows like contemplating my own doom.

Andy Deas: Well, I have my one client that lives here and works in Winnipeg every week and I get this text. "It is -35 Celsius, Andy, Celsius." So, then I'm like, "It's so much worse than what I have."

Robb Wolf: Yes, yes.

Andy Deas: So I think we got a bunch of stuff to cover real quick, Robb. What do you want to start with here? What kind of shenanigans do you want to talk about?

Robb Wolf: Let's see here. We've got Sarah Fragoso of Everyday Paleo rolling on the show here pretty soon, the infamous Mat Lalonde who will answer all of your questions and offer a scientific beat down while he does it will be on here pretty quickly. Art Devany, we did a twit chat with Art and Art wants to come on the show so we'll have him on. We'll get Loren Cordain on here pretty soon. Loren is actually in the process of writing another book so he's kind of gone underground for a while but we'll get him on here. Paleo Physicians Network, the site is being built. More details to follow but hopefully early January, sometime in January we should have that thing up and running. That's the theory. We'll see how that rolls out, but I'm super excited about that. We wrapped up the last two Paleo Solutions seminars for 2010, one in Hawaii, one in Woodinville, and then the format is changing and the content is changing and expanding. I'll get some details on that and the schedule for 2011 up real soon, but folks should be pretty stoked with that. I don't know if folks know but Andy Deas, Andy's beard have a blog. Do you want to tell folks about it?

Andy Deas: I get these funny questions. Yeah, my blog is at chasingcapacity.com. This is basically an outgrowth of annoying Robb when I see him at the gym and I figured I'm just going to write all of the stuff down rather than annoy him while he's training and then he can read it if he wants and other people could read it if they want. Currently finishing my never ending 14-part series of my love-hate relationship with CrossFit.

Robb Wolf: Yeah. Andy is very popular. He scores a visit from CrossFit legal occasionally when he posts these things. So we're making friends, influencing people and making friends.

Andy Deas: That's right, that's right.

Robb Wolf: Dale Carnegie style.

Andy Deas: But you know what's funny, Robb? This is what's actually funny is that I don't really think I hate CrossFit but I get this funny email from someone the other day on Facebook like, "Hey, I'm choosing between going to my level one and this Charles Staley seminar. I think I know the answer, but what do you think?" I was like, dude, just because it's CrossFit doesn't mean I hate it like I think there are some valid principles to be gleaned from it. Do I think it's everything? No, but nothing is everything, right? Nothing is magic.

Robb Wolf: Yeah, yeah. I think that's some of the funny stuff that I know for just my own situation kind of the HQ hyperboles that I hate CrossFit and everything which is kind of funny considering how much support we provide on like business systems, teaching people how to more effectively coach people, more effectively handle nutrition and whatnot and so it's more I just kind of think the Great Wall of CrossFit that I think we have an issue with. When you wall yourselves off and you make your methodology unassailable and define your own terms and then allow nobody in to input on them then you've got problems and the problems are more internal and systemic than they are in dealing with the outside world like everybody else is going to tinker and expand and either they evolve and develop or everybody else does.

Andy Deas: Yeah.

Robb Wolf: It would be interesting to see how all that goes and I'm sure this will score us another nastygram, so, sweet. Merry Christmas, folks.

Andy Deas: Yeah. someone sent me a nice post this week, a really nice woman that owns an affiliate I guess and she basically get like I was saying like everything that I said I hate about CrossFit, that they didn't do at her box. So, I was like, dude, awesome, like if you don't do that stuff, cool, right on to you, but it's like I just feel like we've run into a lot of people that I think still do stuff wrong in the way we see the world. So, you know, I feel just like in this podcast, we're just trying to share our opinion about different things like that's the same thing we're accomplish with all that other stuff.

Robb Wolf: Totally, totally. So yes, so folks can check that out at chasingcapacity.com and get more of Andy and his shenanigans. Instead of him just assailing me as I walk out of the bathroom at Norcal Strength & Conditioning, then it is on the Internet forever.

Andy Deas: That's right. Now you can read it or leave it, Robb. It's amazing how that works. I will no longer ask you if that's a universal movement battered while we're [unintelligible].

Robb Wolf: Perfect. [Unintelligible] is a gymnastics term by the way. I just want to clarify that.

Andy Deas: Are you ready for questions? We got five minutes of...

Robb Wolf: I'm ready to go. Andy has picked some spicy ones this week trying to provoke me like usual.

Andy Deas: Dude, it's almost the holidays, Robb. We got to get some spicy ones in before we go to ground for a few weeks and recover for 2011.

Robb Wolf: Okay, okay.

Andy Deas: All right. Number one question from Tom. "Hey Robb and Andy, first off, epic intro in the podcast."

Robb Wolf: Indeed.

Andy Deas: Thank you. We had nothing to do with it, but we appreciate it. "Question (pronounce this as Dwight does in The Office US version)." I don't even remember how Dwight does that, Robb.

Robb Wolf: Question.

Andy Deas: That's right, that's right. "Been Paleo for close to a year. Was lonely at first here in Amsterdam, but there seems to be a surge in intelligent, young, healthy cavemen here so the work I'm putting in to build a community here starts to pay off. I'm 6' 3", 175, which is kind of pathetic, and about 6% body fat. I work out two times a week lifting heavy weights, doing compound exercises. I've tried to build mass several times. I'd like to get to around 190 but I've been unsuccessful. What I think is the problem is this. I used to IF before working out. I used to not take any starch/carbs post workout. If I'm right, when glycogen levels in the body are depleted after workout, especially after an IF and not replenished quickly, the body starts to cannibalize muscle mass especially if you have a high metabolism like me. So all the muscle I could be gaining is leveled by the muscle I'm losing due to insufficient post carb intake. My gym is pretty far from home, 30 minutes travel so I was wondering if a post workout shake with honey for the carb intake would do the trick. If not, what does? Hope this gets answered. You guys are my favorite source of hour-long humor-induced ramblings about evolutionary biology. Take care."

Robb Wolf: It's nice that we're the favorite one, but I think that's a really rare fine pool of talent.

Andy Deas: It's like our Good Will Hunting moment again. There's like three people that you could pick and we won.

Robb Wolf: Yeah. We happen to have a pole so everybody else, their head is frozen in like suspended animation waiting to be defrosted like Walt Disney at some point. So yeah, you know, this is kind of a classic deal of always framing the question who are you, what are your needs. If you're 6'3", 175 pounds, intermittent fasting may be absolutely antagonistic to your goals. Maybe not, but definitely the primary focus is like you need to feed yourself. You need to feed yourself adequately like that is just kind of first and foremost deal with all that and then from there would a post workout shake be appropriate? Yeah, it totally could be appropriate especially in this situation looking at some sort of a whey protein isolate, maybe some coconut water plus like malted dextrin and stuff like that. A waxy maize starch could be some of the options that you go with that. I was having a good conversation with Ido Portal about this and he acknowledges some of the effects of like the gallon of milk a day kind of gig, but the analogy he made was that the GOMAD, you know, biggie plus GOMAD was kind of like using a screw and hammering it into a spot that you would normally use a nail, or basically it's like a blunt-force tool instead of a precision tool. Ido is another person that will get on the show here at some point. I've done a bunch of tinkering of late of decreasing my caffeine intake, getting some acupuncture, taken some herbs which we have a question later that asked me about some supplements and stuff like that, but basically just looking at the results of an ASI test, looking at the results of some bio-signature stuff and seeing really wickedly high cortisol levels probably because of owning a gym and traveling and doing all the rest of the stuff but I took some time to just get my hormonal ducks in a row and lo and behold like I'm putting on muscle mass, I'm feeling way better, I've been tinkering with the whey protein coconut water shake post workout and feeling really good with that and getting leaner, but the interesting thing is kind of focusing on the hormonal environment first. If you tend to be that really super skinny hard-gainer type, I think putting a little focus on the nutrition but particularly putting a focus on anything that can mitigate cortisol release, lack of sleep, stress, too much caffeine, certainly metabolic conditioning like you really want to keep an eye on all that stuff and putting all your ducks in a row, focus on muscle mass gain and just kind of low cortisol levels. So, I would consider ditching the intermittent

fasting altogether in this situation. Definitely consider a post workout shake scenario and look at like a solid food meal that would be like some protein and maybe like yam or sweet potato maybe 45 minutes after the shake.

Andy Deas: Also I'm just going to throw this out, is it possible that our friend Tom is -- it is unlikely in my opinion that the only and primary reason that we're not gaining mass is that he doesn't have a post workout shake.

Robb Wolf: No. He's probably undereating all the way around, probably undereating all the way around, yeah, which Andy has been on a tear around the gym trying to get everybody to eat more which I think is super important to point out with this. I mean there's a lack of calories overall for sure.

Andy Deas: And potentially, depending what you got going on, we don't know Tom, we never met Tom, but maybe two times a week isn't enough, who knows, but I agree, cortisol and all that stuff but I feel like we have this, you know, all these things I think are pretty multi-factorial and so it becomes super easy to be come up with like, hey man, I know that if you just have a post workout shake you're going to gain 15 pounds and I feel like there's quite a lot of other stuff going on.

Robb Wolf: Yeah, yeah.

Andy Deas: Even though it would be cool if all you need was a post workout shake.

Robb Wolf: Right.

Andy Deas: Then we could get you some Progenics and you would be ripped.

Robb Wolf: Jacked. So like a day's plan here would be like roll out of bed, the classic polygon meat and nuts for breakfast, some proteins, some fat, get your workout on, maybe a post workout shake, solid food meal maybe about 45 minutes later with a pretty good whack of protein but even larger whack of carbs and then going more into the protein and fat meals. Shooting for 5000 calories a day I would say would be a good spot to be with all this, keeping an eye on the amount of body fat you gained and all that and whatever body fat you gained should ideally be evenly distributed if they all just start log-jamming in the midsection then we've got some sort of hormonal problem. We've got some sort of like liver problem going on such that we're not getting estrogen clearance, we're not getting testosterone production or something like that. So this is where like having somebody a good natural path or somebody who knows some bio-signature, somebody who can look under the hood and see what your hormone status is, is going to help a ton and you're going to get a lot more benefit out of your efforts.

Andy Deas: Yes, and realize gaining 15 pounds of mass is going to take much longer than losing 15 pounds of fat.

Robb Wolf: Yeah, yeah.

Andy Deas: Cool. Good question. Thanks Tom. I spent about six months living in Netherlands when I was a traveling man. Cool part of the world, although red light district is a little too much for me.

Robb Wolf: One can burn through a week's paycheck pretty quickly there.

Andy Deas: Yes, no matter how high it is.

Robb Wolf: Or so I've heard.

Andy Deas: Cool. Now we got a question from Dan. "A few quick questions. Sorry if they've been addressed in here already and I couldn't find them." So Robb, we'll just read through them one by one. We'll ask one and then answer. So number one, "You mentioned artificial sweeteners briefly and said you'd get back to that subject, but if you've addressed them again I missed it. Is it in the book somewhere, or on here somewhere that I could read more about it?"

Robb Wolf: Yeah. It's covered intensively in the book. I mean the short answer on that is that the artificial sweeteners can and do chuck and jive the body into releasing insulin despite the fact that it's a non-sweetener. It also has some effects on the hypothalamus that can be really nasty for energy regulation, metabolic regulation of energy output. Taking in a non-nutritive sweetener can kind of trick the brain into thinking that we have calories coming in and then when we don't have those calories coming in, then we can get some problems down the road. I just don't see people lean out to the degree that they want using artificial sweeteners. That said, if you're going to go out and have a couple of drinks, is doing like some vodka and diet 7-up the worst thing in the world? No, that's probably what I would opt for, but I don't have metabolic problems and don't have leanness problems currently so that's again who are you, what are the situations. If somebody is trying to lose body fat or they've got any type of metabolic problems, I would not use artificial sweeteners at all.

Andy Deas: Hey, Robb, now they're leaning out, I'm thinking we could do a spoof of the Shawn Phillips ab diet book now.

Robb Wolf: Let's do it. I'm in.

Andy Deas: We will have really jumped the shark then for sure.

Robb Wolf: We just need to keep jumping back and forth over the shark and just provoke the shark.

Andy Deas: Poke the bear, I like it.

Robb Wolf: Yeah.

Andy Deas: Number two, "I live in Colorado so really nothing but evergreens are in season here. Are most fruits and veggies, berries, apples, broccoli, spinach, etc., still okay even though they obviously don't come from anywhere around here?"

Robb Wolf: You know, again kind of who are you and what do you have going on. You know, the whole lights out refrain of going real low carb during the winter I think is appropriate for most of the people that we encounter, but I think we're also getting a little bit of a sense that if you're already quite lean that maybe sneaking in a little bit of carb particularly post workout carbs will probably be of benefit to you potentially, but then in that case personally I would just opt more for like the yam, sweet potato kind of gig. Even though Art Devany calls that stuff hundred yachter's starvation food, I personally do -- it's so awesome, but I personally just deal a lot better when I'm doing like a yam or sweet potato kind of gig versus really doing fruit at all and when you look at the fruit dose metabolism and all that like it's not the best stuff in the world to be throwing down the pie holes. That's just kind of a personal preference for myself. So I would stick with like a lot of broccoli, spinach, etc, and then if you're pretty lean then I would go with like yam or sweet potato post workout to get a little more carb and I would just kind of chill it on the fruit for a while personally.

Andy Deas: Yeah. I think we'll have Mr. Lelonde talk about that at length probably.

Robb Wolf: Yeah. He will probably like break a – I think he hardly feels a snack while he's talking about it just arrk.

Andy Deas: Poor Mat, rig with messages after this episode for sure.

Robb Wolf: Hating him like a monster. He's like "F you guys. I'm not coming on there, man."

Andy Deas: Oh, blame Robb...

Robb Wolf: Yeah, yeah. That's true.

Andy Deas: All right, cool. Third question from Dan. I think we've talked about this a little bit, but "what are your thoughts on ketosis/ketogenic diets? I was thinking about doing keto before a friend recommended your book."

Robb Wolf: I think they're awesome for the appropriate people. Folks who are super, super lean I just think they would benefit from probably a little bit of carb-feeding post workout. This is something that Nat and I have talked about at length more and more just like once you hit that level of pretty significant leanness, maybe even starting off the day with a little bit more carb. Like my orientation is shifting for leaner people towards a little more carb lenient, maybe you can carb promoting stance, you know, kind of Paleo over, more yam and sweet potato, more starch-oriented than fruit-oriented, tons of veggies. But for the right people, I think that ketogenic intervention is just magic, like absolutely magic for overseeing metabolic problems, reducing inflammation. But then there's that U-shaped craft that I think we talked about not last week because that was Tim Ferriss but the week before that that there are kind of therapeutic dose windows and all those stuff. I think with intermittent fasting and different things, I think you can dip in and out of the ketogenic state and there's a lot of benefit to that on the [unintelligible] and anti-aging side of things but it doesn't have to be an all or nothing event. Like what I think Mat is going to talk about when we get him on here is that when we induce that transient insulin resistance that is characteristic of a low carb diet, it may not be the best thing in the world to then hammer a large carbohydrate meal just out of nowhere into an individual who is in that state and so then we need to really feel a little bit more savvy about how we're recommending this stuff, but I think again like taking advantage of post workout window for some carbs is a really good poise. It's kind of a best of all world kind of scenario.

Andy Deas: Yeah. Just like you've mentioned that I've been hammering certain people to eat more, I don't think that's an all inclusive recommendation but we're seeing hard training athletes who maybe need more carbohydrates and very big lean men that eat like little girls and probably shouldn't.

Robb Wolf: Right, yeah. When Katie de Luca ends up eating far more calorie content, she's like 5-foot-2 and like 113 pounds, then yeah, she's eating more food than some of our 200-pound males but oddly enough still looks better.

Andy Deas: It's a shocker. Yes, cool. Now we've got a question from Phil. "Dear Andy "President of the Beard Club for Men" Deas. I'm addressing this message to you since we all know you're the puppet master in this operation."

Robb Wolf: Indeed.

Andy Deas: Okay. "First the usual. Love the podcast, been listening since there were only five listeners. Great stuff week in and week out. I particularly like the training related info." Editor's note: So do I.

Robb Wolf: Why? You don't want to talk food more?

Andy Deas: No. It's not that I don't want to talk, it's just less interesting for me as opposed to you. We have our own little niches.

Robb Wolf: Luckily, yes.

Andy Deas: Thank you for this. "Two questions for you. How much time will my body need to transition to Paleo and be able to perform at reasonably high level? For example, I've got my first half marathon coming up. From listening to the podcast I know that switching to Paleo two weeks before the event would probably be a bad idea."

Robb Wolf: Yeah. Wait, I thought this was address to you.

Andy Deas: Well, I'll answer too. Yes or check as we say in our gym. Yeah, I don't want to comment on running at marathon right on, dude. Do it once, never again. I'm just saying that may marathon running days is over.

Robb Wolf: Right.

Andy Deas: But I would give six days a week at least before the event at least to adjust. Robb, do you buy that?

Robb Wolf: Yeah, totally. I think if you check out like Paleo diet roughly, Joe Frio is talking about this. You can pick up any of the training bible books. I did a couple of posts like "The Zone and Athletic Performance" and a couple of other ones where I look at the transition time to like a ketogenic diet and all that. You know, it's too much of a demanding event to really shift the fueling right before that. You can be right in the window of like kind of maximum suck eventually so I would just wait until that's done and then you can do some significant tinkering then.

Andy Deas: I think it's great, Robb, the Paleo diet for athletes thing. I had a couple of interactions over the past three weeks with some of our clients and people in the internet that were eating with I would call low carb Paleo but then were training like they were intern athletes for marathons and there was a bit of incongruence I think with their work output compared to what they're putting in their body perhaps and so I feel like it's a good reminder that that stuff is out there like hey, if you're an endurance athlete but you're eating Paleo, there maybe some modifications that you would make to your food as compared to hey, I'm eating Paleo and I lift weights heavy three days a week for an hour.

Robb Wolf: Right, right. You know, we're working on part of the site update. It's going to be a series of kind of flowcharts like are you overweight, yes or no? Do you have metabolic arrangement, yes or no? Kind of like going through the stuff. Another one to think is are you an athlete, yes or no. What flavor, power athlete, endurance athlete? So we're try to block some flowcharts out. There are some things to consider which actually kind of leads us into the question that's coming up next. But you know, your fueling should kind of reflect to some degree what block of training you're in and if you're in kind of a base building aerobic capacity like aerobic enzyme training phase, then a low carb Paleo and trained in a fasted state could be super beneficial like really, really beneficial. Apparently USA track on is pushing a very low carbohydrate intermittent fasted part of their training phase when you're doing that like 60% to 70% heart rate training for like two or three hours a day type of stuff building that big aerobic base and trying to train the fat mobilizing enzyme to be really efficient.

But then when you start getting into the competitive phase, when you'd be going in and out of aerobic and like the athletic efforts with the sprint training and stuff like that, then you need more carbohydrate like there's just absolutely no doubt about that. I think some people in kind

of CrossFit land can get away on very low carbohydrate dietarily because they get very fat efficient but then also because of the relatively high protein intake that they have. They're actually repleting glycogen by some gluconeogenesis and it's just kind of different way to slice and dice it but there are some really good resources. Joe Frio's book, the whole training bible series, Triathlete's Training Bible, Runners Training Bible, Summer Training Bible, all of those recommend the Paleo diet. It's kind of funny, most endurance athletes have one, if not all of those books, and none of them have read the nutrition section in there. I think they look at it and they're like wait, caveman, I don't get it, it's not goo and not cybermax and stuff. It's not to say that goo and cybermax don't have their place, but there are just smarter ways that you can tackle this and hopefully our flowchart deal will help people kind of dial in where they are and what they need to do.

Andy Deas: Once we transcribe the flowchart, Robb, then we're done.

Robb Wolf: Yes, yes.

Andy Deas: Good. And then number two, "Any thoughts on the CrossFit Endurance training? Particularly wondering if all the two a day workouts fall into the beating the tar out of yourself category."

Robb Wolf: You know, I really like Bmac, I like what they do in general but this is one spot where I just diverge from CrossFit in general and then the CrossFit Endurance scene, also in that I really think you need some sort of a block periodization approach to the stuff in a block method for like microcycle or mesocycle. I think doing a lot of what the randomize training, the huge spread of intervals, the smart use of sprint work is totally appropriate for different people and here again like depending on what your event is like if you run 5 and 10Ks and you're time-indexing is generally in that like 10 to 30-minute realm or something like that, CrossFit Endurance is maybe just about all you need. I'd still argue that if you're a 5 or 10K runner, you should probably get out and do some 5 and 10K run more frequently than not to kind of like get used to the pacing and the demands of that stuff, just a little bit of sports flexibility. But as you step this stuff out further and further, you need to do some volume work and part of this stuff, volume and duration work, part of this just relates in so like the central governor theory of our metabolism while we're training like our brain knows how much protein, carbohydrate, and fat we have stored in our system and when we do deep in route into those stores through training, if the body isn't used to going in and out of that nutrient flux then you can freak the system out and you'll bump and this is a lot of the problem that people have. They do too much interval work and not enough just long work and particularly when we start talking about like this 50 to 100 miles foot races and three-day long exero-type events and stuff like that. You just got to start going out along those psychologically and physiologically to get ready for it. So again, this thing goes back to who are you and what do you need to do.

So CrossFit Endurance, good or bad? Well, it could really be good for some people, could be not so great for other people. I think in general it would still benefit people to put a little bit of block periodization into that whole format. There's an interesting thing with this stuff. Say like we take 100 meters sprint or 200 meters sprint, if we bathe their muscles in a bunch of lactate, we convert them from a very, very fast person to a less fast person. A really long endurance athlete, if we bathe their muscle fibers at the wrong time in their training cycle in a bunch of lactate, we actually decrease their ability to mobilize fat as an energy source over the long haul and it impacts negatively their ability to produce force in that aerobic pathway and this is one of the things that beat people up say like tour to France kind of gig, it's that the demand of the race actually go in and out of the glycolytic pathways sufficiently frequently that you start getting like some fiber-type changes and some metabolic changes that are damaging to long term output and so this is some of the struggle. I'm not an endurance coach like I just dabble in this stuff, but there are

some pretty well understood things here that I think if folks were to bring to bear on this training that you get more juice out of the whole thing.

Andy Deas: Yes. I don't have any comment against CrossFit Endurance or pros and cons, but I think your comment about what kind of athlete are you trying to be is an important question, and the other thing a post just came on my Facebook from Hank K, though I'll never remember how to pronounce his last name but he is an Olympic coach in the Netherlands and he basically made some statements that at all levels we should be seeking to do as little as we need to be successful as opposed to not as much as possible.

Robb Wolf: Yeah, yeah.

Andy Deas: And that's kind of keep coming back to the same. For some of the people who aren't into that are kind of the opposite, let's do as much like if they can do CrossFit six days a week, rock on. I'm like, well, do you really need that base on what your goal is or trying to be? Now what are you trying to turn into? So anyway, it's my little soft box for today. Cool, good question and now we have a question from Handle This. "I understand that carbs are most appropriate post workout. That's the when, but how do we gauge the as appropriate in terms of amount? Also for very extended events, low level hiking maybe several days in a row with the pack, what is the peri and post effort quantity calculation? Also, for how long does when last? Is it the hours post or could it be for a day or more if effort was significant? Just looking for some rules of thumb a la the one gram of protein per pound of body weight i.e. grams of carbohydrate per hour. Thanks as always."

Robb Wolf: You know, this kind of gets into the sniffing more of an endurance orientation on this stuff and honestly to some degree outside my real house like it's just not in my area of interest and so I don't tackle it with much vigor because I just don't care. Endurance athletics I just flat don't fucking care. That's said, sorry Handle This, but James Fitzgerald does a really good kind of repletion schedules on this. Poliquin has done some stuff on this. I tried tinkering with this with the performance menu writing some templates. There was recently a piece, gosh, I need to dig up the link on it, where a guy put together a massively complex paper describing what your carb repletion schedule should be and it's like how many kilograms you weigh and what you understood DO2 max is in a particular endeavor and then what percentage of that yield two natural wrap for a given period of time and then you could precisely re-carb load. I'll try to track that down and we can put it in the show notes. It's like 45 pages long and it's like an American journal physiology paper and so you can geek out on that.

But what I find that works really well for the majority of people is just simply like did you eat enough carbs to recover for the thing that you need to do next, and you get some sort of a gut level sense of what you're up to. Okay, I packed this long and this hard today and you know, generally for back-packing you may not need much carbs at all because it's generally very, very fat-fueled. So this again starts going into that thing of do you even need any here? How much of it do you actually need? Do you want to be carbohydrate-fueled while you're on a long back-packing trip because the carbs are relatively expensive relative to the fact with regards to weight and the caloric density and all that sort of jives so response to different moving parts here. But I mean my whole thing on the carbohydrate re-feeding is basically this. Use enough to be ready to do what you need to do and you just need to play with that a little bit. That's my approach on it. I don't have anything really much beyond that and again it's probably because I just don't have much interest in it. I don't really care all that much. Beyond there is we'll try to track down that thing on the marathoning and all that sort of jive, but I mean it's gargantuan paper, 45 pages long and a bunch of calculus in it and all this sort of stuff and it just leaves me drooling on myself. I read the whole thing on a light really trying to get excited about the whole topic and I just don't care, so I know that's kind of a crop out answer but that's

where I'm at. I mean, the fundamental thing is replete enough to be ready to do what you're going to do next and if you're trying to prepare for the unknown and the unknowable then I guess you just screwed because you don't know what it is so there's no way to prepare. So there you go.

Andy Deas: Robb, I would counter your entire endurance athlete comments there. I'll just say for me low level hiking is different than doing 12 iron months in a year. I'll just go and throw that out there.

Robb Wolf: Yeah, yeah. And that's kind of the thing again like who are you, what are your needs, do you even need carbohydrate repletion. So I mean this question just becomes really specious all the way around and I think for most people then it just kind of boils down to have enough to do what you need to do and then some people may not even really need all that much.

Andy Deas: Yeah. As you said there are times when you're relatively well fat adapted and is actually well level hiking as opposed to a 100-mile bicycle race.

Robb Wolf: Yeah, yeah. There is some time criticality to it in really pushing hard so yeah.

Andy Deas: Yup. Cool. Next I've got a question from Jennifer, Robb. This is one of your spicy questions right here.

Robb Wolf: Yes. Yeah, I believe so. Yeah, yeah. It's yeah. So I apologize to folks upfront. I'm going to get a little spun up about this one so if you have kids listening I'm just telling you right now I'm going to get spun up about this one.

Andy Deas: So please, Robb, I want you to take a deep breathe and take a step back.

Robb Wolf: You take this caution. So don't look like you're the arbitrary of reason here. You're the provocateur.

Andy Deas: Well, people enjoy it when you're spun out and this is actually -- some of these spicy questions are actually some of the ones that I feel like need to be answered or interesting. Honestly, with well over a thousand questions sitting at the queue, in the email queue alone, I try to avoid the "I am 6-foot tall, 180 pounds, I eat 13 blocks of the Zone. I want to lose four pounds. Please help me" questions. Because those just aren't that interesting. I feel like maybe I'm going to kill myself.

Robb Wolf: I'm just warning people upfront, just want to spin and get me going.

Andy Deas: Fair enough. I think it's fair.

Robb Wolf: Yeah.

Andy Deas: So here we go. A question from Jennifer. "Has a properly executed Paleo solution ever failed i.e. no improvement in blood readings of cholesterol/triglycerides, no increase in energy, or no change in the insulin response." Do you want to start there, Robb, or do you want me to read through a bunch?

Robb Wolf: Read the whole thing.

Andy Deas: All right.

Robb Wolf: Because she actually wraps up with that same exact statement because she's very, very concern about this and this is a key thing at why I'm not.

Andy Deas: "Secondly, what is the lesser of two evils according to the Paleo Solution, white bread/pasta, or whole grain bread/pasta? I'm a 48-year-old mom of two boys, 5'9" and weigh 125. I'm fit, toned, and trim and keep myself that way by my lifestyle of activity. I play golf and/or tennis up to four or five times a week, walk frequently, do yoga, and generally use life as my exercise, i.e. carry my groceries, take stairs versus elevator, etc, but I do no workout. I watch little TV and prefers books and puzzles instead. You could say it is in my genes, but perhaps because I grew up always with a garden and eating plenty of fresh vegetables but few potatoes, fruit, little soda, sweets except dark chocolate. I quit eating dairy about 10 years ago and never have liked the effect of corn or beans on my digestive system so I generally avoid them. My blood work is excellent according to my doctors and I have no known health-related issues. I have read Nutrition and "Physical Degeneration" by Weston Price, "Protein Power", "Milk, the Deadly Poison," "Lights Out," and "The Paleo Solution." I have a son who has been on the ketogenic diet for eight years for GLUT1ds," which is -- what is this? A glutamine... Glucose Transporter Deficiency Syndrome. Sorry.

Robb Wolf: Yes. We had a question about that many podcasts ago. Yeah.

Andy Deas: Yeah. She's looking for those who want to find out more of what that is. "And I feel I'm very knowledgeable about the makeup of food. I've gone Paleo for about two weeks and generally feel awful and am continually hungry or dissatisfied. I'll stick it out for a few more weeks to make my assessment. My objective is not for myself, but my husband. He has all the bio-markers for overall inflammation. His age is 46, 5'9", constantly battles with his weight. Though he is working out, he is able to stay around 200 pounds. His cholesterol without medication is about 240, triglycerides are about 220. HDL is below 35, LDL around 170. He has bouts of heartburn and has had at least one large gallstone. Nine months ago he had an angiogram that resulted to a 90% blocked artery. The other arteries were said to be approximately 20% blocked. Since then he has been on Plavix, aspirin, statins and I make him take Omega 3 and Vitamin D. He comes from an Italian background, lots of pasta bread, pizza, cakes and cookies, won't eat nuts or seeds, few vegetable and no fruit. He prefers high-carb sugary snacks, candy and soda though he doesn't indulge as often as he would like. He watches TV most evenings for several hours. He won't read "Lights Out" or "The Paleo Solution" and though I've tried to share the information with him, keeping my marriage together always stops the conversation. Therefore, has the Paleo Solution ever failed? And which is worse, white or whole grain?"

Robb Wolf: Okay. So in scientific truthfulness like there's a huge selection bias here like theoretically could be tons and tons and tons of people that have tried the Paleo Solution and failed. They're just kind of like wow, I like Robb and Andy, they're nice guys, I'm not going to mention that the thing failed and bum them out and all the rest of that stuff. So I mean, in all honesty asking has it failed, I can't answer that with 100% confidence that it's never failed. But what Jennifer is fishing for here, what's the unwritten question here is is it worthwhile to give it a shot and how often does it work? What the reality is is that this works every fucking time that somebody will actually do it. I get that what you're doing is you're kind of fishing around this for your husband but this dude literally is Donny DOA Donatello from the book like this is him, the Italian dude who works and is overweight, and has a stand and the whole rest of it and if the dude is unwilling to change his life to save his life, what I recommend to Jennifer is take him down to the insurance shop, stuck him up on life insurance and let him eat whatever the hell he wants and then wait for him to kick off and then out roll the poor boy. Let the dude listen to this and let it percolate into his brain that his lifestyle and eating choices are going to leave him with a widow and kids that have no father. If that doesn't light some sort of fire under his ass, then that's just too goddamn bad because this is where it's at like this is a no joke situation. The dude is going to die. He is in the process of dying. He's got probably a window of

opportunity where he can pull it back from the abyss but that's if he can be man enough and get his balls in line and do what he needs to do. It's enraging to me because we deal with people, we get questions from people who are dying from cancer, they have all kinds of problems going on. I do every damn thing that you can to help these people. They have no other solution, no other option and they're grasping at straws, then you have a guy like this who can do it if he chose to and he is choosing not to. So it just absolutely enrages me and I have no sympathy, I don't care. Just bullshit in his excuses, I mean he needs to be man enough and do something different. The whole question of like white bread or whole grain, it don't fucking matter. They're both bad.

Andy Deas: Goodness, death.

Robb Wolf: So sorry folks. But I do some consulting with a little girl with melanoma like trying to figure out how to help these people and she's actually doing really, really well. They caught it early and it looks like she's doing great. She's now working with an arthropath. I've been helping where I can too, but this stuff just gets me so spun up. When you have people who could choose to do something and your life is so damn precious and these changes are not that big a deal, they're really not, but for some people I guess life just isn't that important to them. I was so sick and I really thought I was going to die at one time that like everyday I have it feels like a blessing for me and I'm just hugely grateful for it. So when stuff like this comes in like I get that people are resistant but the whole reason why Paleo brand has happened, the food company Paleo brand, Joe Capuccio, he's Italian, like he started doing Paleo and felt way better and then he told his Italian wife, or not wife but mother who is in her late 60s who is from Italy, he told her about Paleo and she did it. He just said "Mom, don't eat this, this and this. Eat these things." And she was like okay, and like her hair that had fallen out grew back in, her rheumatoid arthritis went into remission and she put on muscle mass and felt better and like that's the way they're eating now like that's just it. So the whole like Italian thing like everybody likes to pull the Italian card or the Asian card or whatever, guess what? My family is from Arkansas and we like grits and a bunch of other crappy food. Nobody gets a genetic buy on like, "Ah, it's just wasn't in my genetics or my culture," or whatever. It's crap. You either need to make a decision to change for a better life or you don't and I don't really care one way or the other, but for Jennifer I would sit down and really analyze what the heck is going on with this and if you're not going to make forward progress with them then that's kind of that.

Andy Deas: Yes. I guess back to the question about "I've gone Paleo for about two weeks, I generally feel awful and continually hungry and dissatisfied, I'll stick it out for a few more weeks to make my assessment," I think anytime we see a change or a shift in food intake we often see periods where folks obviously their body has to adjust so I think you've got to give it the full 30 to 40 days and see what happens.

Robb Wolf: Yeah. And I'm kind of guessing that probably her food isn't as quite as good as I would guess like she wants throw in what her meal plan was before and what it is now. I would guess that there were probably more carbs and more refined foods in there than what she is kind of leading us to believe.

Andy Deas: Yeah. And actually that raised up a great question, a great point. If we talk about someone's question on the air and they want to respond, it is probably faster if they respond to the comments of that individual episode because the general rate of questions that we get comes so fast that it's hard to then dig one up. So like Jennifer, if you want to throw something into the comment for this episode, that would be awesome. Cool.

Robb Wolf: Now her husband is probably going to track me down and kill me for being adept but oh, well.

Andy Deas: It's all right. My favorite question is not until the end, Robb.

Robb Wolf: Great. Those are hold over from the last one when we run out of time.

Andy Deas: Yes. It's like this never-ending story, Robb.

Robb Wolf: Yeah.

Andy Deas: Next I have question from Bobby. This one is easy, Robb. "Robb and Andy, I can't thank you enough for what you do. The book was awesome and these podcasts get me through my long drive home from work. For me and the rest of the listeners, can you tell a story of Evander's five fries again?"

Robb Wolf: Oh, man. We could probably post a link to this one. Maybe we'll even embed the video so it doesn't disappear. But Tony Budding was interviewing Barry Sears and Sears is in a lab coat and they're in this kind of 1970 style chemistry lab that looks like something from my high school and make it look like it's all kind of scientific and stuff, but there's like this mothball in that old lab and Tony is interviewing Sears and Sears relates the story of working with Evander Holyfield and he asks Evander "What's your favorite meal?" It's like hamburger and fries. He says, "Evandor, you can have that hamburger and then have five fries." And it looks hilarious and our friends at Atlanta had a great joy and mirth with this thing so that's where the whole story came from.

Andy Deas: That story can never be told enough.

Robb Wolf: No, no.

Andy Deas: I mean five fries.

Robb Wolf: That one might be in one of the T-shirts.

Andy Deas: The knockout T-shirts.

Robb Wolf: Yeah. There six listeners or five fries, yeah.

Andy Deas: Cool. Next I have a question from Dan. "What is your perspective on club soda as a majority of H2O intake? I was never a soda pop drinker prior to Paleo, but I kicked out much. When I lived off of for 35 years, I grabbed onto some pleasures from the Neolithic era. Club soda seems pretty innocuous so I indulge. Can you explain to me if this is a bad thing to enjoy and what could be harmful for taking in just simple old bubbles in water?"

Robb Wolf: Yeah, I think club soda is fine like it might be a little bit rough on your teeth because of the acidity, but I wouldn't really -- we drink a lot of bubbly water. Actually it just tastes good so I think you're good to go. There's not really an issue with like long term acid-based melons or anything like that.

Andy Deas: Yes. Indulge.

Robb Wolf: Yes, go wild. Go wild.

Andy Deas: Okay. Here's a lengthy one, Robb. Okay, question from Jeremy.

Robb Wolf: Are you sure you want to go here?

Andy Deas: Yeah, I think this is good. This reminds me of a story of how I got my best 5K time. Well, not 5K, my best 500-meter road time. Anyway, "Hello Robb. Had something like a sugar binge last Friday, four really good macaroons and five to six chocolate truffles, and something quite amazing happened I thought. I had no sugar crash for about 18 hours and in fact elevated energy. Going to have the two to three hours of gym on Saturday made me thought going for it might be all right. I had so much energy that I exercised when I reached home for about 20 minutes just to burn some off because maybe I thought I wouldn't be able to sleep with all that energy and I thought it might not be good to let so much energy stay in my system and then I went to sleep. It was 3:00 a.m. though, not common, but I woke up five hours later, possibly due to the biological clock since I woke up around the time I woke up for the past days or weeks. When I woke up, I did not really feel sleepy and in fact still had all that energy. At the gym, even though there was a lack of sleep, I lifted 160 instead of the 140 I usually lift and have been lifting for the past few weeks. It was way beyond what I've been lifting for weeks. At the almost treadmill, ski thing, not sure what it's called, I felt like I could not stop and I just went on and on and on, double of what I usually do at 22-48 instead of the 10-minute warm-up and I was at speed 248 pedals per minute instead of the usual 190 to 200. Crazy. I kind of felt kind of superhuman and thought that would be great for marathons, but I think I shrank after that even though I lifted weights beyond what I've lifted for that day. I went back and looked up the effects of excess glucose energy in your book and saw how it ends up having gluconeogenesis and thought that might be it. No crash, amazing energy levels that ended maybe two hours into the gym, about 18 hours after the sugar. Maybe the Paleo-ish diet I've been on improved my insulin sensitivity, etc. What do you think, Robb? Wondering if carb-loading before gym has the same effect without the possible after effects of..."

Robb Wolf: Gluconeogenesis?

Andy Deas: Yeah. Man, this question is so long. "But instead of sugar, have sweet potatoes, yams, etc., will be trying that. Also wondering if my body has switched to carb mode from the more ketogenic mode from the weeks of low carb diet just from one night? I would also like to hear about this aspect of the body if you have things to say about it. By Paleo-ish, I mean no grains for five to six weeks since I went for 30 days and then more. Also, have you seen anyone with possibly at least some gluten tolerance and can take maybe one croissant without any effects or significant effects? I guess maybe you can't tell that yet without having anyone on it long enough that you know of. Thanks Robb." Wow.

Robb Wolf: Wow. Man, I need a cigarette after this one.

Andy Deas: I feel like reading this he's still on a sugar high.

Robb Wolf: Totally. I think you have like English as a second language and like some sort of a serious neurological thing going on here. You know, in some ways I'm not even sure what to say other than kind of the obvious. It's like you hit some points where some carb repletion is smart. One carb meal is not going to completely bounce you out of the metabolic pathway of preferential using fat as a fuel source. Gluten is bad news for everybody, like Mat Lalonde and I will talk more about that when he comes on the show. You know, I detailed a lot of this stuff in the book too. Some people are more asymptomatic than not, some people kind of tolerate it better than not. But we have some issues with zonulin and with gut permeability that affects everybody like it's just not really a question with that. In toxicology, there's this concept called LD50, Lethal Dose 50, where like if we took a known dose of say radiation and we expose a hundred mice to this known radiation, there's a lethal dose 50 in which 50% of those mice would die from that radiation. The 50% die, 50% don't. So is radiation bad? Yes. Do 50% of them die? Yes. Why don't the other ones die? We're not super sure, but it's the old pad then you can have LD100 where we know, okay, this is the guaranteed level of which all of them

die and usually you start getting many standard deviations outside what the LD50 is because you have some genetic variations and some different stuff like that that usually inoculate some individuals. So you always have some vulnerability in this stuff, but this is one of those that just kind of take it to the bank deals which is gluten is a problem. If you want to play around with the croissant a week or whatever, knock yourself out. My main deal is trying to get people who are sick and inflamed to give this a shot and then from there I don't really care what she do, play around with it, see what you can get away with. But for me, it's kind of a deal with like do I have a croissant or do I have some dark chocolate covered almonds. Because I know the dark chocolate covered almonds are fairly negative to me, possibly beneficial in some ways, whereas I know for a fact that croissant is kind of death for me. Maybe other people will tolerate it better, but it some really simple trade-off so that they can encourage people to tinker with it. Anything else, Andy, on that train wreck of a question?

Andy Deas: No, but my best 500k brewing time is after I had 14 choco-chip cookies on Christmas Eve.

Robb Wolf: There you go. Carb repletion, man.

Andy Deas: But then I almost vomited.

Robb Wolf: Then Andy died and withdrawn.

Andy Deas: But I went fast.

Robb Wolf: Yeah.

Andy Deas: Next we've got a question from Eric D. "Great podcast. I have two items I would like to hear your opinion on. The first one is Martin Berkhan's Leangains. Not really his training protocol, but more so his nutrition aspect, also assuming his program has followed the Paleo standard with higher carbs coming from yams, squashes, etc. Is this something that is healthy in the long term? I know your crazy busy so a yes/no would be great."

Robb Wolf: I like it. I like Martin's stuff. He has had I think in a lot of ways really good success because the group of people he has historically worked with had been more like bodybuilder oriented and so the volumes and the intensities of training that they're doing are a little more sane. I think I had mix result with the people that we're working with because when I wrote about this back in 2005, I think it was the first time that I had intermittent fasting articles published and I've been thinking about it working with people years before that, but coming out of the CrossFit scene and the glycogen depletion elements, the potential for overtraining and stuff like that, I really didn't see as good a results or it was more mixed particularly when you have people who like police or military fire who had dodgy sleep schedules and stuff like that, the intermittent fasting ended up problematic. But other than that, I think Martin's approach is really smart. He used a branch of a chain amino acids at fasting hours beyond like 14 or 16 hours or whatever I think is really smart too, totally legit stuff.

Andy Deas: And they're not beating themselves into a pulp.

Robb Wolf: Yeah, yeah.

Andy Deas: Which I think helps.

Robb Wolf: Yeah.

Andy Deas: Second question. "Also this may hit closer to home for you. My Brazilian Jiu-Jitsu strength positioning is based around Wendler's amazing 5/3/1." Wow, that was amazing. "Next month my Deadlift is going to go over 400 pounds, Back Squat over 370, Press 185, and Weighted Pull Up at 125. I weight 180 to 185. I like lifting a lot, but when is it enough? I'm one of the, if not the, strongest guys on the mats and BJJ is not really a strength sport. I'm into mat performance, longevity of training and staying lean. I believe it was Ripp who said something along the lines that strength training beyond immediate levels is pointless if you're not in a strength sport because of programming and recovery involved in more advanced strength levels. So in your opinion when is enough strength enough strength, and when does it begin to not be worth the effort to progress and just maintain? Also I don't have the time or recovery ability to roll every single day. Four times a week rolling and two days strength training is a great balance for me and keeps me from overtraining, so more mat time instead of lifting would shoot cortisol out of my ears, funk my sleep because class goes until 8:00 and throw me close to overtraining. Thanks for the input, hope your Jits is going well and keep rolling."

Robb Wolf: Yeah. It's probably you're at strength levels that you need per jits. After having Edo come and hang out, the guy who really shifted, I'm doing a ton more gymnastics again and a couple of derivative stuff, a bunch of rein routine work and I have what's called like straight arm day, and then an arm day, and then a lower body day. The lower body day is activation work, some power points, power snatches and then usually a back squat, front squat, [unintelligible] lift of something like that, but I really like I dig the mobility plus strength elements of the gymnastic movements. Front levers, back levers, skin-the-cats, planches press to handstands, and all that sort of jives. The very, very difficult to gauge progression like the nice thing about Wendler is just that it's a very easy progression that you can track with weight pull-ups, dips, bench press, the whole gig. The gymnastic derivatives are more challenging, but I will guarantee you that the mobility that you get out of that plus the strength and mobility is so much more appropriate to Jits like it's more appropriate for just about everything like I think that heavily gymnastics-oriented upper body training deal and then some lower body training with back squat, deadlift, power point, power snatch, glute to ham raises, sprints and all that, you could build a really cool two-day a week template and tinker with that, but I think your numbers are as good as they need to be particularly if you just want to be good Jits. What I would start really looking at is mobility and power development.

Andy Deas: Yup, yup. That's just interesting, Robb. I totally agree that you need to constitutionalize your progression. The most progression... I think for some people that spins the mouse.

Robb Wolf: Right.

Andy Deas: But good, not pretty boring. Well, and free crossover so I didn't count everything. Poor stuff because I need a lot more gymnastics.

Robb Wolf: Yeah, yeah.

Andy Deas: All right, we're going to skip the next one, Robb, because that's a piece that's coming next week.

Robb Wolf: Cool.

Andy Deas: And really get down to number 10.

Robb Wolf: Okay.

Andy Deas: A question from Ben. "Robb, three questions." Without a mess. "1) What supplements are you currently taking?" Go.

Robb Wolf: Supplements, I'm taking Tribulus, a Chinese medicine formula. Lutein I believe is what it is. Then some, gosh, what else am I taking? Some digestive enzymes and natural cal.

Andy Deas: "2) What supplements would you add to your diet if all your meat was grain-fed?"

Robb Wolf: CLA, alpha lipoic acid, and I would try to get some palm oil, red palm oil in some meals.

Andy Deas: Cool. "3) Are Twinkies Paleo?"

Robb Wolf: Twinkies are definitely Paleo if they are Zone-ratio'd with a little bit of chicken breast or actually with some seitan which is concentrated wheat gluten because true quality really doesn't matter on that.

Andy Deas: Seitan. I'm still waiting for the classic joke of someone at thepaleoishtdiet.com. Roll that, Robb.

Robb Wolf: Anyway...

Andy Deas: Yeah, that could be worldwide. "PS. The new website is pretty rad, but going to be honest and say I'm a little bummed with no forum."

Robb Wolf: Dude, just wait. Working on a forum, can't do it all in one day.

Andy Deas: Yes. All right, number 12, a question from Tane. "Gents. Only listening to the podcast now as I've been away. I did hear about the Twinkie debate during my travels however. Reference Professor Twinkie: Is it fair to boil his hypocaloric Twinkie diet down to consuming less poison is better for you than consuming more poison? While I'm on a roll, the unknown and unknowable/Utrique Paratus issue. If no summation of leg extensions, leg press, hamstring curls and calf raises will equal a squat, can we posit that 60 kipping pull ups doesn't equal being able to climb a cliff? Comment from Robb: Uh, yeah. This is what Erwan has seen in some elite CrossFit folks. Great capacity and a complete inability to climb real-world objects. At some point you have to work technique and expand skill set. Not just sweat."

Robb Wolf: Yeah. Tane is a genius, he wins through again.

Andy Deas: I actually want to make a T-shirt, Robb, that just says "Not just sweat." I'd give it to all my freaking clients. Do you have anything else you want to say about that genius question from Tane?

Robb Wolf: Is that a question or a...

Andy Deas: Well, it's Tane so it's a question/comment all rolled into one really. We should have twitted this I think.

Robb Wolf: I don't know. I almost feel like saying anything with that silly, the whole thing. You know, there's no doubt like that that place you want to start looking and it's hard to get people fired up about it because it's that like the monkey with the tin and a jar, you've got to put one thing down to pick something else up. But if you want to chase capacity, the place to chase it is in technique and skills and to do that you need to be mindful, you need to be rested, you need to not be neurologically cooked, and now are there places where it's appropriate to burn the candle hard and do all that? You know, like if you're a CrossFit gamer or something. Yeah, absolutely. But the thing is that working different legitimate gymnastic progressions, getting real technical on lifts, getting real technical on sprinting, swimming for God's sake, you know, all that stuff, that's where the greatest development

is happening, not simply having enough to let seizure to burn a lot of calorie. Like that's the most caloric output you can have, it's to introduce seizing to somebody. You can break bounds at the same time so not only are you expanding calories hand over fist, you're snapping bones and stuff but there's nothing that's really productive about that. So chasing some capacity, getting some skill set, knowing how to macro climb, there was some great cost to journals, back ladders, cargo nets and all that sort of stuff, but it's difficult to quantify similar to getting people excited about being upside-down and running around on their hands, and it doesn't leave you gasping for breathe. You know, we encounter some of these push back from our own clients who want to work out really hard but the funny thing is it's all of the people who are the most orthopedically budgeted up are the ones who do not care much about building skill set and whatnot. They just want kind of a boot camp kind of gig and just workout hard and that's it. What you need is to supply people to some degree what they want, but in some ways you needed to try to wrap enough chocolate around the medicine to get them also in the position of what they want, what they need.

Andy Deas: I'm also going to say that some of the fact that they want to work hard, I actually think they just want to sweat and feel like they work hard because for several people we've done some programming for, something like 500 meter repeats with lengthy rest in between was their least favorite workouts. Why? Because it's actually really freaking hard and they couldn't hide from some of the pain like they could with barbell clean lounge pushup situations.

Robb Wolf: Right, right.

Andy Deas: Because actually sprint repeats and things are actually hard work and you can't convince yourself that it's quasi hard work.

Robb Wolf: Yeah. That was one of these things that watching the Jay Schreider freak of training video and then I was actually at CrossFit Santa Cruz way back in the day and it was myself and Dave Camarillo, Greg Amundson, a bunch of really good, like a bunch of legit dude athletes and this was when I wasn't fat and old and beat up and everything and actually I had some pretty good capacity, but we did a relay Helen and I think I related this thing in that power bias article that I wrote where normally Helen is a 400-meter run, 21 kind of bell swing small pull-ups repeat three times, but what this thing was, was sprint forward. You know, one guy on each team sprinted the 400 meters, tags a partner on his team, then that person kind of bell swings 21 wraps and then they tag somebody on the team and then the next person does the pull-ups or basically it was you could slice and dice the workload anyway you wanted. It was in a condo line or kind of a tag team kind of format and it was the worse workout I ever did and there had been a lot of them. One, it's like a bunch of very fit people but then in between each element you typically had about a minute of recovery depending on how it all lands. Sometimes it's close to two minutes of recovery. But that 400-meter run was a dead sprint because I wanted to get back and then tag my partner so that they could get going. I didn't want to let them down. So you had the team competition element which was really, really like demanding, but then also the fact that you were sprinting each element like on the kind of bell swings you were exploding them up as hard as you could but then snapping them back down like decelerating them at the top of the argon and snapping them back down to try to speed up the cycle time and then kind of the same deal on the pull-ups. You weren't kind of languidly going up and then collecting your kinetic energy on the way back down. You'd snap yourself over, drive yourself back under and turn these things over really quickly and it was horrible. So I'm not super sure what my point is on that, but you know what?

Andy Deas: I think from hard work I don't think...

Robb Wolf: You know what? It's interesting that the interval type stuff is just terrible. It can be more terrible sprinting altogether and interestingly this was a lot of the recommendation that I made for programming for people to slice up lots of their year doing workouts like this, intervals within intervals, and then you cruise over to OPT squads and they do a ton of stuff like this, just a ton of it. Do they do all the work of this? No, absolutely not. I think he is really focusing the bulk of his efforts on this whole kind of sport of fitness thing. That's where his kind of wheelhouse really is but he ends up raking all these elements apart and then reintegrating them back together and trying to in the process...

[Audio was cut off]