

The Paleo Solution

Episode 93

- Robb Wolf: Howdy, folks? Robb Wolf here. Greg Everett's also here. It's Episode 93.
- Greg Everett: I'm over here.
- Robb Wolf: Well, you're some place which actually brings up a somewhat side topic. I had another long, detailed, helpful suggestion on how we could improve our sound quality, and several much better sound quality podcasts were held up as examples; and long, detailed lists of gear was offered up.
- The reality is that Greg and I are in different towns, in fact different states, occasionally different countries, and so our sound quality just kind of sucks and that's just kind of the way that it's going to be. So I appreciate the helpful suggestions but the sound quality is what it is. If it becomes unbearable then we'll just shut the whole thing down and go farm coconuts. So just an update.
- Greg Everett: Yeah. I don't know. I don't really -- I mean when we have to have guests on and use Skype, I get it; but day to day I really don't see that much of a problem. I mean maybe I'm not that picky. I'm not in here with like my surround sound freaking THX high-def stereo system listening to these podcasts but it sounds fine to me.
- Robb Wolf: I think that's what's going on, like some sort of like \$25,000 Bose sound system is ferreting out the sound deficiencies in our little operation here.
- Greg Everett: I'll tell you guys what. How about this? I'm going to charge admission for you all to come in here. You can sit on my couch in my office and listen to it live. But here's the trick. I'm wearing earphones so you only get to hear my side of the thing.
- Robb Wolf: Well, that's the most important part anyway.
- Greg Everett: Yeah, and you can go back later and see if you were able to guess what Robb was saying the whole time.
- Robb Wolf: It's usually blah, blah, insulin, blah, blah, who are you, blah, blah, vegetarian, CrossFit.
- Greg Everett: That's about it.

Robb Wolf: So what's new with you, dude? I've been on the road for two weeks. We ended up managing to scrape together last week's podcast with Mat Lalonde and Mark Sisson which turned out pretty good even though we literally were like in a broom closet.

Greg Everett: I did like your preamble to that one that if you don't like it then suck it.

Robb Wolf: Well, I've just been assailed by the sound quality folks and I appreciate the input but yeah, it gets old sometimes.

Greg Everett: Again, if those guys want to invest a bunch of money in your podcast then I'm all for it. You guys can ship that gear right over here. I'll take it.

Robb Wolf: We did a fair amount of money on microphones and stuff but I think we're just about as good as we're going to get until we become a broadcasting juggernaut and surpass the big three in bandwidth.

Greg Everett: That's right.

Robb Wolf: Yeah.

Greg Everett: Wait, what are the big three? CrossFit.com?

Robb Wolf: TacFit and zumba yeah, yeah, those are the big three.

Greg Everett: Awesome.

Robb Wolf: Or ABC, NBC, and CBS. You know which one you're looking at.

Greg Everett: All right. Well, yeah, that's what's been going on here. I've been on call for jury duty all week and fortunately have not yet got called in. So if I get called in today I'm going to be pissed after having made it the whole week.

Robb Wolf: Seriously, ouch!

Greg Everett: So we'll see.

Robb Wolf: Well, we were on the road for two weeks. We were at the games and they actually let us in, didn't throw us out. We did get some very interesting looks from a few folks that we bumped into in a couple of the VIP boxes that we're invited into. Apparently, there was some backlash for the folks who invited us into the VIP boxes.

Greg Everett: That's a surprise.

Robb Wolf: Yeah, thanks to the folks who took that bullet for us, but I got to see a ton of people that we haven't seen in a long time.

I was actually super impressed with the whole games scenario, even the softball toss. It obviously ferreted out some people who have never ever, ever thrown anything before. Even in the male competition it was kind of like, "Wow! Okay."

So I thought the whole thing was cool. It's pretty damn impressive. It's grown huge. Is it a diversion away from the original microgym format on which the whole thing was founded and theoretically on which the whole thing was going to be built and propagated? Yeah, absolutely!

But that aside, like it's pretty impressive. It's quite a logistical nightmare to organize all that stuff and I think it ran pretty well. I had some people telling me that they had some grievances with how it was run. I wasn't directly in with Jenny, our gal from NorCal who was competing, because they only let a few people down in the trainer/coach's area so I didn't see much of the back end of that.

I thought that the judging is just the way that the judging is going to be. You're going to have some good calls and some bad calls. Jenny got lucky on a couple of calls. She got not so lucky on some other calls so it seemed to be kind of a 50-50 wash on that.

I think over time if they want to minimize potential backlash, I think again focusing on movement pools that require less judging and are more just kind of overtly quantitative, which I think then you're going to end up with a lot of stuff that looks like obstacle courses and many strongman events but kind of whatever, but I thought overall it was pretty cool.

Greg, did you check out any of it?

Greg Everett: I wish I could share in your enthusiasm. I'm not a big fan.

Robb Wolf: You weren't a fan? Why would you not dig it?

Greg Everett: I was shocked. I was dismayed to see DNFs on the softball throw, and it took me a whole to dig into that and see how the F someone could DNF on a softball throw and finding out that it was because they went outside the boundaries on the side, which it were what? It was 10 yards wide?

Robb Wolf: Right, right.

Greg Everett: I don't know how to feel about that. I mean if you can't make it on your first one, maybe you should consider granny tossing it right down the middle and at least get a point. You know what I mean?

Robb Wolf: Seriously. Just get something on there.

Greg Everett: Any idea? I saw a couple of throws and wow, it was embarrassing.

Robb Wolf: Even though on the dude side like a couple of the top of the food chain guys.

Greg Everett: No, I'm talking about the guys. You know the saying "he throws like a girl?" We're going to have to revise that to "he throws like a CrossFitter."

Robb Wolf: Yes.

Greg Everett: Because honestly girls, you just made your way up the ladder on that one.

Robb Wolf: I definitely thought the female competition was way more interesting to watch than the male competition.

Greg Everett: Well, it's real about that.

Robb Wolf: Yes, yeah, shocker, even on just the "hottitude" factor and all that, but I just found it to be a tighter race and a lot more interesting.

Greg Everett: I got to say I was rooting for your girl, Robb, because that would have been pretty -- there would have been some serious freaking berry aneurysms occurring in the heads of certain individuals.

Robb Wolf: Yeah, that would have been quite a coo.

Greg Everett: But I also wanted Kristan Clever to win again too.

Robb Wolf: Right, right. Got you! And then Rebecca Voigt did fantastic. I don't know if folks know but she almost died from an infection that she had from a knee surgery a couple of years ago, and so she had a huge comeback and I just always dug her. She is a super cool girl who just improves year to year, real technical.

Greg Everett: And doesn't super shift all day long.

Robb Wolf: Yeah, she doesn't. She's just a nice person. Yeah, she's a legitimately nice person. I really, really like that gal a lot.

There's still this interesting feature of the games. Even for the attendees, when you've got a 20/25-minute long workout or something like that, it's just not damn interesting. It's cool. Highlight real is definitely pretty bumping.

But that's going to be an interesting thing to see how this thing progresses. Obviously this stuff is getting big. The sectional and regional piece I think is interesting in the way they do it because everybody gets to get the pink participant ribbon and compete with the big dogs and then they get trimmed out over the course of time so I think that's really smart. It's pretty cool, pretty interesting. But whether or not this concept is really going to go big, big guns, is it going to go from ESPN3 to ESPN1 and stuff like that --

Greg Everett: It's going to go from ESPN3 to The Ocho.

Robb Wolf: El Ocho! It will be interesting to see how they handle that because it's a tough spectator sport, like there is a ton of downtime even when people are down there killing themselves because you're just seeing a lot of repetitious stuff. There's not really that much action, that much new stuff going on again unless you start making things a little bit shorter time-indexed or you start making it a --

It starts looking a lot more like strongman or a lot more like obstacle course type stuff. Sasuke like a ninja warrior or stuff like that I think keep you pulled in a little bit more just because they're moving through different obstacles all the time. So I don't know.

Greg Everett: We'll see what Reebok wants to do with its new company.

Robb Wolf: Yeah, yeah, and I mean this thing is fully in Reebok's driver's seat at this point, like they're definitely steering the boat on the bulk of that stuff because it's Reebokulous. So I don't know. It was cool. That was cool.

Then we had the Ancestral Health Symposium which I'm going to try to rally a write-up on that. I got to meet Boyd Eaton. I got to hang out with Loren Cordain, and God, so many people that I just super respect their works, Stephan Guyenet and God, who else, Denise Minger who was super hot and also really funny. She put on a really good presentation.

She's going to be badass over the course of time with all this stuff. She's already done some really great contributions with regards to like the T. Colin Campbell China Study kind of deconstruction.

I got to finally meet Chris Masterjohn in person which I always totally dig his work and just a ton of people. I need to actually go through the presenter list and some of the other stuff. I took a bunch of notes on the people I was able to check out and so we'll fill in some of that stuff.

We talked a little bit about Mat Lalonde and his presentation so I've got some thoughts on that. I feel like we've got two different messaging systems going on. One is this kind of high-level scientific rigor thing which Mat kind of shone a light on some of that stuff, and then the other side of this is how we --

Greg Everett: Something like a CrossFit Journal level kind of stuff?

Robb Wolf: Absolutely, yes, yes, at least. We're talking high-level peer review, stringent standards of application, and all that sort of jive.

Greg Everett: They've got the science.

Robb Wolf: We got the science, absolutely.

Greg Everett: It's been proven.

Robb Wolf: It's been proved. But then on the other side of this thing, on this whole evolutionary biology ancestral health deal, how are we articulating this information to the masses? Mat's talk was really, really good; but at the end of it, I had a number of people come up to me and say, "So wheat is okay because wheat germ agglutinin is inactivated when we cook it?" At the end of Mat's talk he addressed that and he is like, "No, it's still not okay for this, this, this, and the other reason." But we need to be careful how we couch these questions and everything.

With a huge level of detail you can end up losing a bunch of people but then at the same time we need that detail to be scientifically rigorous. So how do you get this general message out there without being a spaz and being scientifically inaccurate? It's an interesting question, kind of an interesting topic, and I think just as people get more sophisticated with their understanding we'll figure out good ways of articulating this stuff over the course of time.

And I think the thing that we still kind of boiled down to is some sort of an elimination diet protocol mixed with reintroduction and kind of see how you do, and in that way we address health issues but then we also play to individual differences, and I think that that works pretty well, but that doesn't hold much water when you're trying to convince academic bodies at Harvard and Stanford to sign off on this concept. So it's kind of interesting.

Greg Everett: So you presented there, right?

Robb Wolf: I did, yeah.

Greg Everett: And what was your deal?

Robb Wolf: My deal was I gave a little bit of just my history and how I got involved with all this stuff, and then really just to whatever degree I've had a modicum of success in this whole thing with the blog, the podcast, the book, just kind of relating the social connectivity element of this stuff that we've been essentially broadcasting this message of exactly what I just said, this evolutionary biology Paleo type approach, try it for 30 days, reintroduce things, see how you do, see how you look, feel, perform, chart biomarkers for health and disease, and this has just been remarkably successful.

And I think that that's a great place for us to start, but one of my key things in the whole deal was that we can't let this thing turn into a religion; we can't let this slide down the road of Paleo orthodoxy. There have been some people in the overall community that I kind of feel like have tried to one up the scene or tried to designate themselves as somehow doing better work by having more stringent standards on certain things. They are more Paleo orthodox than other people and therefore that makes them right.

I think that that's a dangerous road to go down both with regards to not fragmenting this overall kind of movement and then also creating these splinter factions like what we see within CrossFit and some other things. We need to have the ability to really self-analyze and be self-critical and take criticism from outside and burn the whole house down and start it over if we need to. Like if our premises is bad, we need to just be willing to take our lumps and burn the whole house down and just go with that.

So I talked about that stuff and then I just tracked actually using a lot of Staffan Lindeberg's work, kind of a theoretical model that when we do our investigations we should have some consistency from

anthropological observations, epidemiological studies, clinical interventions, all the way up in the mechanistic proof, and we should have consistency throughout that whole story.

So when we look at this case of high carb versus low carb, we see all kinds of exceptions and paradoxes and all this sort of stuff, whereas when we start looking at this from a more solid evolutionary biology perspective, when we look at say like the Kitavans, we have a situation where even though they eat a high-carb diet, they're largely free of the disease of civilization until they start introducing evolutionary novel foods. Then we start seeing some problems.

There's a theory that kind of grows out of that that dietary lectins and other bioactive substances from plants could be at cause in this whole change from being healthy to not healthy in the Kitavans. And then we've got an opportunity to either prove or disprove that thing to get in and see if that hypothesis holds water; and we see some consistency across the board, whereas when we're just talking high carb versus low carb we don't really see that same type of consistency.

So that was my whole presentation. I ended up running out of time because I jabber on like an idiot so I had to pack in my last little nuggets there at the end. But it was super cool. I received a lot of positive feedback. If they do invite me back next year I'm probably going to tackle a more technical topic instead of a big overview topic. So it would be nice to be able to stretch my legs a little bit and actually get a little sciency next time instead of just a big overview scene.

Greg Everett: Cool!

Robb Wolf: Yeah.

Greg Everett: All right. Well now that you're all warmed up --

Robb Wolf: And everybody has fallen asleep.

Greg Everett: Yeah, this one is going to be weird where the first topic starts at minute 18.

Robb Wolf: Nice! Okay. So we better boogie.

Greg Everett: Well, no. It's okay.

Robb Wolf: Okay.

Greg Everett: We'll soldier our way through our poor sound quality presentation and see if we can provide some information despite that.

Robb Wolf: Indeed.

Greg Everett: Katie says, "Hi Robb! Thanks for your awesome podcast." See, Katie thinks it's awesome.

Robb Wolf: Sweet!

Greg Everett: "I've been catching up and learning a lot. I haven't seen this come up yet though, so let me know if I missed it somewhere. I have a condition called 'vasovagal syncope' which means I pass out kind of randomly when triggered. For me, triggers are unfortunately things like standing up too fast, exercising without eating or drinking enough, heat, overexertion, etc. Obviously this interferes with my workouts since I can't push myself as hard as I could otherwise, and I feel like a wimp when I take classes anywhere and have to sit out so I don't pass out.

Otherwise, I'm healthy – 23 years old, 5'7" 125-pound woman, have never been that strong but I've always done lots of martial arts and am more or less fit. My blood pressure is and always has been a bit low – like 90/60 – but everything else (EKG, cholesterol, and a slew of blood tests my doc has given me) have come back normal.

So, two questions: 1) Any diet suggestions that you think might help? My doctor said to way up salt intake to help keep my blood pressure up, but that sounds dangerous too. I'm still working on cleaning up my diet. Do you think Paleo could help with this condition? 'Healthy' diets tend to lower blood pressure, which makes passing out more likely, so I'm tempted to leave some bad stuff in to prevent that.

2) What kind of workouts do you think are appropriate? I would love to try CrossFit, but I feel like the intensity might just make things worse. Any experience in the gym with people prone to passing out? Any thoughts would be really helpful."

Robb Wolf: So a couple of things here. The low blood pressure is obviously or maybe not obviously, but it's definitely some of the root cause on this whole story so I think that that's a piece of it. I think adding in some salt is probably a not bad idea as to like keeping some junk food in there to try to keep your blood pressure up. That's largely built around either inflammation or insulin resistant blood pressure increases.

So I don't know. I think that you could tinker with a more Paleo-esque type diet. I would just keep the carb content higher so that we've got a little bit of aldosterone increasing effects via the insulin so that we can retain some of the stuff.

Something you might bounce off your doctor is actually including some licorice root extract into the mix. Licorice actually blocks the breakdown of aldosterone in the liver and it can elevate blood pressure that way. It's a very common additional feature in a number of adrenocortical burnout formulas, but again, talk to your doctor about that. That is just a thought that you could potentially add into the mix.

The workout deal, again, we had a question or I think it was gosh, I get all this stuff confused. We had a question on the podcast about some - yeah, yeah, yeah, we had a question on the podcast about somebody - I'm totally losing my mind - two podcasts ago about should I go to a CrossFit gym? And the gal took a list of questions including do you have a beginner's class, some sort of an on-ramp deal, this, that and the other? She went in and talked to the folks and they just looked at her like she had a third arm growing out of her head, and so she was like, "Okay, bugger you guys." And she kind of kept walking.

So this thing again, CrossFit unfortunately in its current incarnation, it can mean you have a really highly qualified coach like C.J. Martin who's put a ton of people at the games. He does amazing prehab and rehab. Or you can have somebody who does 45-minute AM reps and chippers every day in their class and they have absolutely no ability to distinguish between a beginner and a more advanced athlete or think about kind of periodization.

So CrossFit as a concept is good. What you need is somebody who can coach it well, and then when you go into it, you go into it with a moderate level of intensity so that you don't beat the dog piss out of yourself or in this case like be out on an 800-meter run after you just did some thrusters and you pass out and crack your head open.

So I actually think something like lifting some heavyweights and then doing some sort of a CrossFit type deal when you're getting a massive blood pressure change and a really huge stimulus in the vascular bed stimulating blood pressure modulation, I think that could be a great thing for you. But again, you need to tackle it in a way that is safe for you so that you don't pass out.

So again, I would do a little shopping around and maybe listen back to two podcasts back. And also the gal that asked that question, Brissa? Brissia? Brissa?

Greg Everett: Oh, yeah. By the way, Brissia or whatever your name is, you said that I butchered your name but you spelled it out phonetically for me, and so I'm going to email that to you and let's talk about that because you lied to me.

Robb Wolf: You led him astray, gal, and yeah, a whole other thing. So look at the questions that she asked of this affiliate, and then you can shop around a little bit and try to see if you've got somebody who can actually meet you where you are and provide the type of coaching that you need so that you're safe.

So I would definitely consider adding a little salt to the mix. I would talk to your doctor about the potential of a licorice extract to enhance kind of - actually to elevate blood pressure a little bit. Your blood pressure is so damn low. It could go up a little bit and you'd be fine. We're not going to pop a gasket on that stuff. You're going to be totally fine on that.

Doing some sort of ramped-up moderate tackling some sort of CrossFit-esque mixed modal activity at a 70/75% effort initially, that's going to be find and it's going to be really beneficial for you; and I think the vast majority of people, that's probably where they're going to get the majority of their benefit is at that 75 to 85% intensity.

Set another way you do a workout and you always know that you could have gone a little bit harder, and I know this flies in the face of the whole intensities, the primary variable driving forward progress. That's just not accurate. There's a whole lot of exception to that. We can find it all the way from Olympic weightlifting to training for a marathon. There are cases where you need to ramp up and provide volume bases and stuff like that. So exercise science has actually dealt with this topic and I guess that's about all I have to say on that.

Greg Everett: All right. Let's move on because there's so much I would like to add to that.

Robb Wolf: Indeed.

Greg Everett: Kendal says, "I've been eating a pretty strict Paleo diet since late March minus some dark chocolate and red wine occasionally. While I've had amazing results (lost the last 15 pounds of my baby weight, am no longer

anemic after struggling my whole life with it, and feel stronger than ever) I've seen a scary increase in my PMS symptoms." Not cool.

"I'm almost 35 years old and the mother of four children. I recently started a daily kettlebell workout in addition to my regular dancing regimen (ballet, etc, but not professional). I'm 5'9" and 133 pounds. I've spent a better part of the last 10 years either pregnant and/or nursing so I didn't have a cycle for much of that time. Weaned the youngest over a year ago and I'm not having more children. My thyroid is perfect and my recent physical showed outstanding blood work.

My cycles are pretty normal, 26-28 days and lasts 5-6 days with no cramping. But the entire week before I start I'm miserable. I get depressed, have ridiculous mood swings, and ultimately I'm making myself and my family crazy. While this has been increasing over the last year, it does seem worse since I increased my animal protein by going Paleo. I've also had some hair loss for a couple of years, likely stress, but I've continued to have my thyroid checked and no problems there.

Do you have any suggestions? I've tried many herbs and natural remedies and nothing does the trick. I can't take potentially 20 more years of this but I'm also not interested in artificial hormonal treatments like the pill."

Robb Wolf:

A couple of things here. One, if I feel like you're eating too much protein, eat less. I mean I still like the animal protein thing, why do eat that stuff? Because it has a low immunogenic profile; we get lots of branch-chain amino acids which prevent muscle wasting. There's a bunch of other things there but if you feel like you're eating too much protein eat less. The whole Paleo shtick is kind of macronutrient agnostic.

I just got to say; this is really funny; at the Ancestral Health Symposium, I actually found out why Zone bars and The Zone itself is 40-30-30 and it's got nothing to do with eicosanoids and I was sworn to secrecy not to divulge why it was picked that way. Someday I may divulge that but I just have to throw that out there, a really, really funny story on that whole thing.

Greg Everett:

Oh, man, that's the biggest tease ever.

Robb Wolf:

It is the biggest tease ever. If you meet me in person and you ask me directly what the story is, I will tell you so long as you too are sworn to secrecy not to divulge the story.

Greg Everett:

Should I not eat the molecularly baked cinnamon rolls anymore?

Robb Wolf:

I wouldn't go that far, but it's a whole other thing. So if you feel like you're eating too much protein, eat less. I don't know how to. That just seems a little bit goofy there.

The other thing that I would think about in this whenever I'm hearing PMS and some cycle issues, it's either some Omega-3/Omega-6 imbalance or maybe some lack of some activated linoleic acid derivatives like dihomo-gamma-linolenic acid so you might look again at maybe some primrose or borage oil supplementation, somewhere between like 15 and 30 milligrams a day. If you can find a good holistic medicine doc, someone like a Chris Kresser, you might need a little bit of blood work to confirm this or you can just drop in like 15 to 30 milligrams per day of the GLA.

The dodgy thing with this is that if you get this wrong, it kind of makes your PMS worse. So this is where if you want to play with this, I would go get some blood work looking at some prostaglandin byproducts; and if the person knows what they're doing, then they will know what to look for in the blood work. So we're looking at some inflammatory prostaglandin products coming out of either the Omega-3 family or the Omega-6 family and then we're going to see where you are with that and then make it a much more educated guess as to whether or not you need some additional Omega-3's or some activated Omega-6's in the form of like borage or primrose oil. I bet that one of those routes is probably going to do the trick for you.

There's a possibility you might have some estrogen overload or something like that and something like di-indole methane or some of those estrogen detoxification herbs can help. But again, you need to do a little bit of digging under the hood to really know this for a fact because if you go the wrong direction then that can make things more problematic.

But the PMS symptoms are usually a sign of abnormally elevated estrogen levels that were kind of blunting or staggering the effects of progesterone as it comes on the line and you start getting water retention and bloating and just generally feeling a little bit crazy. So it's one of those two things.

Also I would throw out there again, and this is a very benign but oftentimes very, very beneficial intervention, is trying some acupuncture or Chinese medicine for this. I see a lot of benefit from that a lot.

So that's my thought on that; not a lot of fun; a couple of different routes you can tackle but I would definitely get some other inputs into this before you jump in and just start trying things willy-nilly.

Greg Everett:

All right. You're probably going to need some acupuncture after this next one.

Aimee says, "Dear Robb, I have just escaped from a month of intensive yoga teacher training, wherein part of the program involved me being vegetarian and listening to hours of lectures on why vegetarianism is the best way to live.

Up until that month, I had been following the Paleo diet with all sorts of success. God, vegetarianism kicked my ass. During morning meditations, my stomach would rumble so loudly in its quinoa riddled discontent that NO ONE could concentrate properly. I was bloated, tired, weak, and irritable the entire month.

About a week into the program, the teacher started a six-hour monologue on how meat eating was immoral and unhealthy. My punctured, angry intestines nearly strangled her in angry disbelief. But because it was a monologue and not a discourse, the only input I was permitted was the cacophonous rumbling of said intestines. So I figured I'd ask you about the few things I can remember from that long afternoon.

Yoga teacher (spoken in a really weird Boston/English accent, if you can imagine): Humankind did not evolve eating meat. Of course we were hunter/gatherers, but you know, we didn't eat THAT much meat. Meat was hard to come by, so we mostly ate plants, you know. There is evidence of this in the fact that our intestines are very long. If we had evolved to, you know, eat meat, we would have short intestines like other carnivorous animals. Because our intestines are so long, the meat just sits in there, and it, you know, rots. It rots for about three days before you finally, you know, pass the fecal matter. And if you eat fruit, or whatever, after you, you know, eat meat, then that will just stay on top and rot. This results in, you know, really bloody awful indigestion.

Insert indignant tummy rumbles here.

My question is whether or not the length of intestines has anything to do with whether or not a species should eat meat. I guess it's not all that relevant to most of the people who listen to your podcast, but as a yoga teacher, I need to be able to defend my meat eating habit. The most I

could do at yoga school was say that while my soul would never reach samadhi, my taste buds and intestines would, which I feel okay about, but I'd like to be able to say a little more regarding the evolution of the matter.

Thanks for everything. I am now a celiac volunteering on a farm in Italy. Listening to your podcast gives me the strength to resist all the delicious smelling pasta that's constantly set before me."

Robb Wolf: Holy cats! Wow!

Greg Everett: Oh, man!

Robb Wolf: So I guess the primary question here is does the intestinal length kind of indicate what a particular critter ate. Humans are in this kind of obligate - well, the opportunistic omnivore length. We are longer than a cat or dog. We are massively shorter than what we would see in a bonobo or a chimpanzee or a gorilla. That's the intestinal part.

And then when we actually get to the colon part, the colon in these primates actually has massive fermentive capacity which is an opportunity for cellulosic material to be broken down by bacterial activity, and this is actually used to make some free fatty acids. I think I've talked about this in earlier podcasts.

So I mean kind of the long and short of that is that humans can live on quite a mix of material. We seem to do much better on more concentrated material so even plant material. We tend to do better on like fruits and tubers than we do on kind of green twiggy plant material. We get some nutrients out of the green twiggy plant material in the form of vitamins and minerals and stuff like that, but there even seems to be some indication that super high fiber diets maybe somewhat damaging the intestinal lining because of the action of insoluble fiber.

So I mean this whole story here, it's just funny. It's this thing again where like if you go into a medical anthropology department and really look at the story, it's just false. I don't know how much more to say than that. It's just completely inaccurate.

When you start looking at isotopic studies of human beings, both archaic Homo sapiens living as hunter/gatherers and then Neanderthal and Homo erectus, what we find is that via stabilized topic studies basically looking at how much plant material versus animal material we consumed, we were as carnivorous or more so than the arctic fox which is an

obligate carnivore. You can then back up and make the argument, “Well, we don’t know that that’s actually optimal for human beings.” Okay, I’ll acknowledge that. I guess there’s that possibility lurking out there.

But we definitely know from biology and from evolution that when an organism spends a significant amount of time eating a particular kind of dietary regimen that you tend to get better optimization at functioning on that food stuff; and it’s not to say that we can’t or don’t see an input of a novel food stuff, a new food that we could do even better with because this is in fact what we see in the development of the whole human lineage is that we had somewhere around like Australopithecus the input of more animal products probably via scavenging, and then Homo habilis started developing some sort of tool use and opening up the long bones of either killed animals or scavenged animals.

And then we see an explanatory story here of the expensive tissue hypothesis in which we traded a significant amount of gut mass including intestinal length and whatnot for increased brain mass. So there’s nothing in biology, nothing in evolutionary biology, no credible evolutionary biologist says that human beings ate a lot of plant material or that we evolved as vegetarians. This whole expensive tissue hypothesis shoots this thing down. Occasionally you get John McDougall, the vegetarian guy, trying to claim some stuff along this line but it’s just preposterous stuff.

So I don’t really know how to address it much more than that and on this story of morality, and I’m going to piss some people off here like I’m going to be culturally insensitive I’m sure and I’m going to piss some people off but here we go.

Greg Everett:

Do it.

Robb Wolf:

In the vegetarian yoga doing camp, this vegetarian concept is held up as some sort of like morally superior kind of story, and this grows out of the Indian/Hindu tradition in which you have vast numbers of people who eat a vegetarian diet for some sort of a perceived moral superiority. And this is in a country and from a culture that sees the burning of women because like if the husband dies, traditionally the wife was burned with the consent of the family because there was no social security system there to take care of them, and this is a culture which frequently practices infanticide alongside the adoption of a morally superior vegetarian approach.

Now, westerners who adopt this obviously, they're not practicing burning of brides nor infanticide, at least not from my knowledge, but this is the moral steeping that this stuff comes from, and the vegetarian myth tackles a bunch of this perceived moral superiority of this stuff in a very, very good way and it's just bollocks.

For one element of this, vegetarianism is not a bloodless endeavor. Plenty of animals are killed in the process of vegetarianism; and as we dig into this more and we actually start looking at sustainability issues, vegetarianism, if people do a bunch of handwringing about saving the planet and doing all this other stuff, the production of grains which has driven our population as high as what it has and largely built on this kind of not really sustainable use of fossil fuels to drive this whole thing, if something is going to destroy the planet, or the planet is not going to get destroyed unless a massive asteroid hits the whole thing, but what we're talking about really is saving our own ass.

The planet will go on one way or another whether we destroy our ecosystem so much that essentially a reset button is pushed and it starts over with cockroaches and sea anemones, whatever the case is there, agriculture is kind of at the seat of where this stuff is going wrong, and unless we adopt something that looks like permaculture and permaculture ends up actually focusing a lot on large grass-fed herbivores and something that looks a whole lot like polyphase farms, that's a sustainable endeavor. Where we're headed with agriculture and even this kind of vegetarian perception of agriculture, that's not and the numbers are pretty clear on this, and this is going to be some stuff that I'd start devoting more and more time to on the blog, actually getting in and pulling this stuff apart.

But the vegetarian myth is good in this regard. I would definitely recommend checking that stuff out. And I would also recommend -- I'm not going to go down the moralizing deal. That's where I would look. I think the yoga-vegetarian moralistic deal is just a preposterous supposition. If people want to head in that direction that's fine, but they're on super shaky ground.

Greg Everett:

Aimee, I just think you need to start your own new branch of yoga. Everybody is doing it. And you need to be just a full-on meat eating super agro bunch of yoga people.

Robb Wolf:

There was a dude and I completely forgot his name. He was pretty popular for a while and he was a meat eating bodybuilder yoga. So he lifted weights, ate meats, but was big and jacked and also did a lot of

yoga. It was interesting. It was maybe 10 or 12 years ago that I ran across his thing. I don't know if he's still on the scene.

But he had just jettisoned the whole moralizing element of the yoga scene. He really liked the breath control, the connectivity and all that sort of stuff. He liked the movement. He liked what it did for his body, especially the complementary elements to the bodybuilding stuff. That makes sense to me. I kind of like that. That seems like a real functional integration of some pretty cool topics.

Greg Everett: See? There you go. And then you can hold your own training seminars and during morning meditation you can serve hamburgers.

Robb Wolf: Exactly. We won't have rumbling guts from that, just happy people.

Greg Everett: All right. Oh, look at that, what a perfect segue.

Hairy Meat Eater says, "Robb, I have done a few endurance competitions (sprint triathlon, half-marathon, and the Tough Mudder) and it seems like after every one of those events I get sick, more specifically I get bronchitis.

A background on myself: I'm 26 years old, I float around 155 to 160 pounds and I'm 5'9. I have been working out and running since 19 years old and I just started CrossFit in May 2011. I usually go to CrossFit four days a week and play Ultimate Frisbee every Tuesday. I just started incorporating the Paleo lifestyle as best I can. I am still in college so it's hard for me to afford going organic on the fruits and vegetables and buying grass-fed meat.

It is especially hard because the town I live in, Columbia, Missouri, only has two small markets that cater to organic and locally grown produce and meat and their products are EXPENSIVE. For example, I just went to one of the stores yesterday and an organic pineapple was \$6.00! So I feel like I am in good shape and I make sure to let my body rest for 4-5 days before any competition. During the rest days I do a lot of stretching though. And I still manage to get sick after almost every endurance competition.

For example I just completed the Tough Mudder on July 23rd in Wisconsin. The course was not very difficult for me, (I never felt winded or out of breath; we took it easy during the uphill) but I definitely felt my muscles cramp during certain obstacles. So even though I felt great afterwards I ended up with a 102 degree fever, stuffy nose, and a tight

feeling in my chest the very next day. Do you think this was just physical stress that caused this? Maybe being out in the sun all day?

And I should note we drove 9 hours the day before the race to get to the Tough Mudder so I wasn't properly hydrated because I didn't want to pull over every 45 minutes to take a leak. I figured getting to the hotel at a decent hour at 10 p.m. to get a decent amount of sleep was as important as being hydrated.

What are your thoughts?"

Robb Wolf:

Oh, man. One is in paragraph two, talking about enacting the Paleo lifestyle as best you can, he didn't actually go in and mention what in fact he was eating, but this is hippie excuse for failure numbers one and two. "I can't afford grass-fed meat. I can't afford organic produce." This stuff doesn't matter relative to just eating meat, fruit, veggies, roots, tubers and avoiding grains, legumes, and generally dairy unless you tolerate the dairy shtick.

So I just want to be really clear on that. Like if you're living on a budget, then live on a budget and eat smart and don't sweat eating organic material. When you get out of school and a little more money, then put your money where your kind of value system is and support the local sustainable grass-fed meat, wild-caught fish, blah, blah, blah. So I wouldn't get too hung up on that.

And then if we go back to the first paragraph, he seemed to be getting bronchitis after each one of these things. So I don't know. I mean different people are wired up different ways and maybe you have some adrenal issues. Upper respiratory infections are definitely a sign of overtraining, particularly kind of on the adrenocortical axis. So you may be doing too much. You may not be sleeping. It sounds like you had an ass-kicking when we consider the drive, the dehydration, the heat and all the rest of that, and then fundamentally you got sick at the end of this thing.

So I don't know. Unless you're new to the podcast, I don't think it's kind of a newsflash that I view most endurance activities as not being particularly healthy. If people want to do them, cool. Again, I'm probably going to piss a bunch of people off who enjoy doing this stuff. If it seems to add to your life, great, do it, knock yourself out. There's usually a big community element to this, both in planning the event, doing the event, and then post-event. So I think that that stuff is hugely valuable. But if you're tackling it in a way that you're getting sick, then I think you're kind

of shitting the bed on this thing if you're really focusing on kind of a health orientation with this deal.

So yeah, it was obviously some sort of stress. You've got some sort of consistent problem popping up here. If you go to a functional medicine doc or somebody like that that can do some assessment of what your adrenal issues are, that might be helpful. That's going to cost you a lot of money. It sounds like you don't have a lot of money so maybe you just need to dial back your endurance activities and not beat yourself up so much so that you don't get sick frequently.

Greg Everett:

It's pretty common though. I mean the upper respiratory tract infection is super common after endurance events. I feel like I've seen multiple studies showing that somewhere in that 25 to 35% range of participants get sick after races. I mean that's pretty freaking significant. So maybe he is more susceptible than the average person like if he's getting it every single time. So yeah, maybe you should kind of cool it a little bit or try to figure out some kind of prophylactic approach and take a giant whack of vitamin C and zinc or something.

Robb Wolf:

I can say this. When I was doing more of a -- I always had modified the CrossFit type stuff that I was doing. It was always on the shorter end and all the rest of that, but when I was consistently trying to push as hard as I could, whenever I traveled I got sick. It was just an if A then B kind of gig. I got on an airplane, I got an upper respiratory infection because I think I was always a little bit beat up and I know I probably run a little bit on that adrenal fatigue burned out side. I just have figured that out about myself.

So now, I mainly lift weights. I do a little bit of sprint stuff. I never ever push into fatigue to the degree where I feel like the white buffalo in the sky, I feel I'm dying kind of gig.

So I think that that's a big piece. We just got through traveling. I shook probably 600 or 700 hands at the CrossFit Games. I probably shook a similar number of hands at the Ancestral Health Symposium. I ended up with a little tickle on my throat. I was in hotel rooms. I was on planes. I ended up getting five really significant gluten exposures just because I had bad luck and all the rest of that. And I've got a little bit of snarfliness today but normally if I was training really, really hard I would be full-blown sick right now.

So this again in this whole performance/health/longevity kind of gig, because athletics are so prominent in our lives and the competitive elements and all the rest of that you have to push really hard or you're a

pussy, and then what's the point of doing all the stuff? But the reality is that the demands of doing a schedule like what we've got laid out here are not insignificant and possibly above and beyond at least an intensity value what our bodies are really well wired up for.

And what we see again is probably some kind of a bell curve distribution in which you have some people like the folks that competed at the CrossFit Games which they can deal with an absolute ass-beating and not get sick, not get an upper respiratory infection, but that is not indicative of what the general population should be doing.

Then you get somebody like me who's kind of the canary in the coalmine, a little bit on the probably adrenal compromise side just because I've always driven things really hard. It might be genetically and epigenetically wired up to not do so well with that. In the attempt at maintaining some sort of super high work output, if we're consistently getting sick from that, there's just a problem there, and I mean it kind of sucks, because well, everybody else is doing it, and I don't know.

These results, these empirical results are really informative, and if you've got a schedule which is consistently making you sick, there's just something broken with it, unless you're okay with being sick, but you can look at doing some things to try to prop up your recovery and whatnot. But I think fundamentally we just got a schedule problem here. You need to dial back the intensity probably of what you're doing and I suspect you'll probably do a little bit better.

Greg Everett: All right. Let's see here.

Robb Wolf: Greg is like, "End it! Please end it! Let it stop!"

Greg Everett: Okay. I'm fine.

Matt & Stacy say, "Greg, oh wait, I mean Mark. Adam? Andy? No, Josh? There's still not a mandatory search function built-in pre-email so hopefully I'll avoid being the tortured soul ripped apart for asking a question already posed. But, here goes.

A few months ago a popular blogger, who claimed to have been Paleo for over a decade, gave it up with a list of reasons why this person wasn't feeling their best. Robb's rebuttal was short, sweet and to the point, from what I recall it went something like, 'bollocks, a bunch of crap, no way, eat what you want buddy.' While I agree on almost all fronts, I do have

one question still ringing in my ear. Let's all take a moment to appreciate the pun."

The subject line I think was clogged ears or something like that. I blew that punch line, didn't I?

"My husband's and my ears have been clogged since shortly after going Paleo. Coincidentally, this was one of the listed items on this blogger's complaints. We assumed it was because we're working out more and we use ear buds at the gym. We came up with some explanation to ourselves about sweat being trapped in there, etc. However, I haven't used ear buds at the gym for several weeks because things were starting to sound like they were underwater sometimes and it was really bothering me.

I was hoping lack of ear clogging devices would've led to less ear clogging. To my dismay, I'm still singing more off-key than usual, although just as loud. Now that there's warm weather out the kids are getting embarrassed with the car windows rolled down. Don't worry, it's teaching them a valuable life lesson about how parents are put here to embarrass them. That's not so much as a concern for me as is being unable to hear people properly. Not to mention the fear I have about what might be lurking in our ears to make them not be working.

Lastly, to be clear: the rest of those items on the blogger's list were bollocks, especially dry skin and allergies. Dude, how many testimonials do we need to have about skin and allergies being resolved by a proper Paleo diet?

So, the questions are these: 1) Does Robb have any clue why our ears are clogged? 2) If it's related to an overproduction of wax, how the hell did Grok get it out? I'd like to not have to drip chemicals into my brain cavity. 3) Does he want to expand on his 'bollocks' response to this blogger's farewell to Paleo?

Sincerely, your faithful Paleo evangelicals recruiting one child at a time."

Robb Wolf:

So I'll actually tackle number 3 first. So this is a -- oh, gosh. When I first commented on this, I didn't even recognize who it was that was writing this. When I recognized that it was Don, then I was kind of like, "Holy cats! What's the deal with this thing?"

And I'm going from memory on this deal, but a bunch of the story that we eat too much protein, there's tons of studies and observational stuff showing that grains work good in agricultural peoples and it kind of went

on from there. So I didn't even recognize that it was Don until it after I had even posted this thing and then I was actually even more kind of blown away.

And I got to meet Don in person at the Ancestral Health Symposium. I've had him on the hundreds of emails and he is very, very knowledgeable, very knowledgeable of all this Paleo concept stuff. He has a Chinese medicine practice so he has some neat integration of like this Paleo concept and Chinese medicine which I have kind of a warm spot for also. I think the two dovetail together very, very nicely, particularly when you jettison the grains, legumes, and dairy and get rid of -- or look at like five element theory through the lens of evolutionary biology -- local, seasonal, all that sort of jive.

I'm going to go out on a limb here. At that time, when I first saw this, I felt like Don -- and I could be completely wrong and if I am I will beg forgiveness, apologize, and all the rest of it. This is not me trying to be a dick. I really hate when people character assassinate people. This is a character assassination. I think Don is a super cool dude. This is my opinion. I felt like Don put this out there as a means of kind of a promo deal, like "Hey, I'm not following this way anymore. There's a better way. I was lost for 10 years. Here you go."

And part of my bugging with that and why I was like "bollocks" is that again, like I've said so many times, the whole Paleo shtick is macronutrient agnostic. If you need more protein, eat more protein. If you need less, eat less. If you need more carbs, same story. So when people start making noise about like, "Well, I need more carbs and so I'm going to eat grains," that's just bullshit.

Now, if you want to eat grains, eat grains, and some people do better than other folks with them, whether we're talking rice or wheat or whatever. One of Mat Lalonde's final, possibly his final slide at the Ancestral Health Symposium was again this kind of bell curve deal with on one side, two or three standard deviations out, were people who are quite well adapted comparatively to tolerating things like grains, legumes, and dairy. Then people at the other end who are not adapted well at all and who have significant problems.

And then the main bolus, three-quarters of this curve, are people who are either poorly adapted or marginally adapted to these Neolithic foods, and I think that that's where most people play out and we also know from a lot of the anti-aging medicine crowd that even in the people who are pretty well adapted that that adaption to say like tolerating gluten for

example, you become less and less adapted, less and less adept at dealing with gluten as you age. And even if you are well adapted to it if you have some sort of a stressful life event, the potential for you to develop celiac or other intolerances is higher. So these adaptations are beneficial primarily earlier in life and then you start experiencing the deleterious effects of these foods later in life.

So I encourage people to get in and tinker with this stuff. I probably have corn tortillas two or three times a week because I don't really feel bad from them. I seem fine with that. Any type of bean just launches me over the edge and I end up with GERD. Anything with gluten in it I have problems. I'll have white rice maybe once every three weeks when we do some sort of sushi or something like that. And that's where I'm at. So even though I'm like the Paleo guy, I eat some grains here and there because I tolerate them, but it's all on just kind of an experimental reintroduction deal, probably the same story.

I joked with Mark Sisson when he was on the podcast last week. I'm the Paleo guy but I eat primal because I have some dairy once in a while and stuff like that.

So I don't know. If this was a legitimate -- the thing that's interesting to me was that this was just kind of a manifesto or declaration kind of gig, and then we didn't see any type of a "Hey, guys, I've been reintroducing corn and I feel fine with it and that's kind of interesting. I've been reintroducing this and I feel fine with it."

There was no kind of like incremental sneaking up on this gig. There was just this kind of declaration and that's what kind of like flipped my bullshit sensor on this. And if I'm wrong, then I apologize. I'm not trying to be a jerk on this gig but that's my expansion on the "bollocks" response to Don's deal.

As to the clue why your ears are plugged up, I have absolutely no idea other than possibly you're consistently getting some sort of a food which is still causing some sort of an inflammatory response and it's kind of plugging your ears up. This is one of the reasons why I don't do a lot of dairy because I absolutely do get phlegmy and clogged-up ears from doing dairy of virtually any type. I'll get kind of mucousy and plugged up from it. So maybe you guys have a problem with eggs. I don't know.

And then the overproduction of wax. I don't know that this just is an overproduction of wax. When we start experiencing plugged-up hearing, we're dealing more with Eustachian tubes and stuff like that, and we're

actually getting inflammation in the small structures of our sinuses and the Eustachian tubes and this is where we get the head pressure from. It's not necessarily that we've got a giant ball of wax plugging up the ears although certainly that can happen.

So that's my story. I would start looking for some sort of inflammatory food that you're not doing well with, and then by all means if you want to try reintroducing grains, try them. That's generally what I recommend. I don't really think that's going to fix anything. I still think for carbs, stirring the boat more towards like yams and sweet potatoes and squash is a better option both nutritionally and from an inflammatory standpoint.

But I just flat don't care what folks eat at this point. My deal is trying to offer some information to try to help people, and again, I just could give a shit about this Paleo orthodoxy kind of gig. Get in; put it on like a sweater; try it for 30 days to see if you look, feel, and perform better; and then tinker and see how you do from there. I just don't care beyond that.

And if you do great on like concentrated gluten, God love you, great! Eat some seitan that's deep fried and full-tilt boogie. But beyond that, what we're seeing is a whole lot of people that benefit from this basic elimination diet intervention that's built somewhere around a Paleo orientation and that's where I'm hanging my hat. When I see somebody else with just tons and tons of testimonials talking about autoimmune disease, GI irritation and all the rest of it, and it's trumping what we're doing consistently, then I'll change my stance.

This is to some degree where I like the Weston Price concept. Those folks that are eating fermented grains as a staple deal and tons and tons of fermented dairy, you're not getting the same results. You're just flat not getting the same results. The Weston Price concept has been around for a long time and we are absolutely not getting the same results that we see out of a more orthodox Paleo kind of approach, at least as an initial intervention to get people healthy.

And when you start showing me data and consistent results on par with what we're seeing here, then I'll loosen up my standards. Until I see that, then this is what I'm hanging my hat on. And I think like Mat Lalonde is very much in that same boat with me. So there you have it.

Greg Everett:

All right.

Robb Wolf:

Good group of questions though on kind of an interesting topic.

Greg Everett: Yes. Well, let's wrap it up with one last one that has absolutely nothing to do with any of the previous questions.

Robb Wolf: Awesome.

Greg Everett: Josh says, "Hi Rob, long time no see, huh? I apologize if you have already attacked this question because I haven't listened to all 89 podcasts yet."

Clearly this is not a brand-new question.

"The question is referring to something I heard from Greg Everett," that's me, "when he was referring to abdominal contraction during the back squat. He seemed to publicly refute the advice I have received from Kelly Starrett about making the abs 'hollow' during the back squat when he said he prefers the abs to be 'bulging' or flexed outwards.

Do you have a preference or do you see clients who do better with one tactic versus the other? You probably know my body type already but for the sake of listeners -- 6'4, 205 pounds, long femurs, short torso, positive ape index of 5. That is, wingspan is 5 inches longer than height. Cheers."

Robb Wolf: Oh, boy.

Greg Everett: Before you continue, let me just clarify here that I have never said that I want the abs bulging or flexed outwards. That sounds like it's a game of telephone right there.

Robb Wolf: Yeah, yeah, there might be something be lost in the mix, and I would want to see the Kelly Starrett piece that's specifically saying "hollow." I think what we're consistently trying to trigger with this stuff is some sort of a neutral spine. We don't want to be in flexion when we're under load. We certainly don't want to be in hyperextension when we're under load. So we've got this interplay of like the abs firing, the psoas, the glutes. Everything that is acting on the pelvis we need some sort of synchrony with this; and I think depending person to person, we may need to cue things a little bit differently.

The Westside barbell guys, although they're wearing a belt and they're pushing out against something, there's no doubt that from kind of a physics standpoint you want kind of a broad base whenever you're trying to support a load, and I think if you consciously think about hollowing the abs, like if we were to strike somebody while they're consciously trying to hollow the abs, I don't think it's going to be as rigid or strong as somebody simply trying to fire both the rectus abdominis and the

transverse abdominis in a static fashion so that the torso is as rigid as possible.

We want to do what we need to do to be able to do a front lever or a planche or something. That's just as engaged both on the anterior and posterior chain as we could maybe not possibly get. I think the biggest EMG, basically the electromyograph output on the abs, was from a maximal back squat or something like that. It wasn't a crunch. It wasn't a toe-to-bar. It was actually like a max back squat or a max deadlift or something.

Greg Everett: It was Bender Ball crunch.

Robb Wolf: Was it a Bender Ball crunch? Really? Are you kidding? I was like holy cats!

So I mean to me it's basically brace your abdomen. Make sure that you've got a neutral spine. And we may need to do some tinkering or some specific coaching to reach that. Maybe some people are consciously overinflating or overextending the reps and that may be a problem so we may need to coach them to hollow the reps. Maybe other people are actually hollowing them and we may need to cue them more just abdominal brace kind of gig.

But I would want to look at specifically what Kelly was talking about. There was a fair amount of backside hollow hullabaloo when we mentioned the Kelly Starrett piece on the squat, and the reality was Craig and I were completely in agreement with regards to the toes forward deal in athletic development. Our concern was that you have a bunch of -

And this again grew up out of my gym because of a culture that had kind of grown up there because of one trainer. Anything that was new was regarded as gospel and what was lost in that whole scenario was that depending on who the person is, they may need to squat toes out to simply reach the range of movement for a full range of movement squat which is going to be very beneficial for them orthopedically; and then over the course of time we may be able to migrate these people a little bit more toes forward.

If you're Olympic lifting, then flat doesn't matter because what we're trying to do is keep the center of masses as close to the bar, combined center of masses as close to like the base of the heels really as we can possibly get; and if we can accommodate that by turning the feet out and pushing the knees out, that's completely appropriate. That may not be

the optimum way to squat for athletic development but that's all that stuff.

But the fundamental take-away from this is that depending on who the person is and what they have going on, we may need to have different cues; we may need to have different kind of activation stuff to deal with what they have occurring. So I would really want to know specifically.

And when folks do stuff like this, like if you could drop in say like a link to the specific mobility WOD in which Kelly said he wants the abs "hollow," then it makes it easy for us to go back in and track that down and be able to comment on it from a little bit more of an educated fashion because there was a fair amount of hullabaloo on the back end of this when we were talking about Kelly's knee and foot position during squatting. There are some people thinking that we were taking Kelly to task on this when we absolutely were not. We were simply pointing out that you've got a huge pool of people who don't know enough anatomy and physiology to be able to realize that there's a spectrum of needs within this and we need to be adept enough to be able to figure out who the person is in front of us and what they need.

Greg Everett:

Yeah. I'm going to add a few things to that. So first of all, like Robb said, I have no idea what Kelly Starrett has said. I don't know what this was referring to specifically. I don't know what Kelly recommends as far as ab contraction during squatting. I don't know.

But how you're contracting your abs or how you're positioning your abdominal cavity and all that stuff is going to be kind of lift-dependent and situation-dependent. If you're doing a front lever like Robb says, hollow is a correct position because you're trying to keep your body from bending in that opposite direction so you're basically shortening the distance between your pelvis and your ribs, if that makes sense.

A totally different situation than squatting. I mean it's not even related. So there shouldn't be any kind of confusion there about "Well, if we do it in this situation we should do it in the other situation." No, it has nothing to do with each other.

So when you're squatting, there's some torque on the spine and the hips and more or less depending on how you squat and kind of your body segment lengths and whatnot, but largely you're dealing with compressive force. So to hollow in that situation really doesn't make any sense for a number of reasons.

But one, like Robb says and like I've said a million times, I say it in my book and over and over again, you need a broad base of support for that week. The analogy I used to always use and it's really funny because I hear it thrown around in my gym now and it's usually being used inappropriately, but when you build a pyramid you put the wide part on the bottom and the narrow part on the top, right? That's strong. You tip that thing upside down and it's not very stable anymore. You hollow in your abs you're reducing the size of that base and now you're unstable in every direction.

The reality is that you've got this basically a cylinder. You only have a semi-rigid support on one side of the spine. That thing articulates in every single direction, some direction more than others. But if you don't really pressurize the abdominal and thoracic cavities by taking in a lot of air, then there's no way you can really stabilize that cylinder.

Another analogy I used to use is like the beer can or soda can for you teetotalers. If you have a can that is still sealed and full and a can that is open and empty, which one can you stack more weight on before it collapses? And more so, if you take one and you dent in the side, i.e., hollow on one side a little bit, which one is going to collapse first? I mean when you look at it that way, it's really obvious.

But so regarding specifically bulging out the abs or flexing outwards -- I think it's either a misinterpretation of what I said or maybe at some point I said something that wasn't clear. I don't know. It could be entirely my fault -- what I'm saying is that when you are getting set to brace, you need to expand the abs to allow a full drop of the diaphragm, a full breath before tightening the abs down. I'm not saying that you're continuing to push your abs out during the effort.

Now, like Robb kind of alluded to, when you're wearing a belt there's a little bit of a difference there. You kind of are getting a push out against the belt and some people emphasize that more than others. I don't like to really overemphasize it because I feel like if you're wearing a belt properly, if you get your proper breath and you brace your abs correctly, that pressure against the belt is going to happen naturally because the belt is a little bit inside kind of the diameter you would normally be.

So anyway, expand your abs so you can get your breath. You got to get your guts down out of the way so you can fill your lungs completely. Then tighten down, and yes, there's going to be TVA activation as well as rectus abdominis and obliques and all that stuff but not TVA activation to

the detriment to everything else. In other words, you're not trying to like cinch your belly button into your spine.

And this isn't a Westside barbell thing. It's not a weightlifter thing. It's anyone who supports heavyweight in a squat or a jerk or that kind of thing or like a carrying position. It's just what happens across the board, whether they've been taught to do it or not. It's very natural. So go look at videos of lifters and strongman or whoever, and it's not just because they're fat, because not all of them are fat. Look at how they're bracing their abs and getting prepared for that kind of stuff.

And experiment with it and I would say experiment fairly cautiously. Don't load up your max back squat and then try to hollow completely because you very well may hurt yourself. Likewise, don't do the exact opposite of what you've been doing with your max back squat. Work into it. I think it will be pretty clear to you fairly quickly what allows you to create the most stability, and whatever works for you, I would go ahead and continue doing that.

Robb Wolf: Cool.

Greg Everett: All right.

Robb Wolf: That one ended on a whimper.

Greg Everett: I felt like I was being a little bit like you and just talking too much so I decided to stop.

Robb Wolf: Awesome. How long is this one, like an hour and a half?

Greg Everett: An hour and 12.

Robb Wolf: An hour and 12, okay. 18 minutes of it were me rambling in the beginning so sorry guys.

Greg Everett: Exactly. So it's back down to an hour. Perfect.

Robb Wolf: Cool.

Greg Everett: Sweet.

Robb Wolf: All right, G. Thanks for everything. Anything else? Your DVD is out. You don't have a seminar for a while. We've got the final Paleo Solution seminar actually the week that this thing goes up in Boston, so that will

be the last one before we start cracking open the physician and healthcare provider specific educational modules. Keep people posted on that. I guess that's it.

Greg Everett: Cool.

Robb Wolf: All right, man. Thanks for everything and I will talk to you soon.

Greg Everett: Okay, see you.

Robb Wolf: Okay, bye.