

Paleo Solution – Episode 138

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Robb Wolf: Hey folks Robb Wolf here. Greg Everett. What is this, Episode 138 of the Paleo Solutions pod cast?

Greg Everett: You bet.

Robb Wolf: Dude. Cool, we're supposed to have Dr. Joe Brasco on I but we had some sort of a problem with the interwebs or something and Dr. Joe was never really picked up his [laughs] line on the Skype dealio.

Greg Everett: He probably just had some time to think about his involvement with the show and think better of it.

Robb Wolf: And he's gone completely dark. That's actually probably a good idea 'cause he is a very smart guy so he probably actually did some background checking on us, someone's like "Yeah, I'll take a pass on that".

Greg Everett: [laughs] Ah, come on.

Robb Wolf: If that is not the case, then we will get Dr. Joe on here soon, we've got Mark Bell in cue, Nate Miyaki. Who else? Well we got a doc who is, what the heck is her name, Dr. Allison Siebecker who's gonna be on, she a SIBO, small intestinal bacterial overgrowth expert but she still looks pretty cute despite her line of work. So yeah, we've got some.

Robb Wolf: Hey, at least it's not podiatry or urology.

Alright, so what's going on? The book is out, it's chugging along if folks need to buy it, they need read it, they need to post reviews on Amazon.

Greg Everett: Yes, that was a big help, so far we have some good reviews on there. So really appreciate those of you who took the time to do it. And we would really appreciate more and more of that stuff.

Robb Wolf: Cool.

Greg Everett: And to answer your questions before you even ask it. No right now, there's not a plan to release it as a Kindle version because I still have a soul.

Robb Wolf: **[Laughs]** Well, people would just buy a bunch of your first book, then you could be independently wealthy and you give away the second book.

Greg Everett: I know it's so weird. I wrote a book on Olympic weightlifting and it didn't even hit the bestseller list. It seems like such a large market high demand topic. Bizarre.

Robb Wolf: You need to do a Bulgarian translation and then maybe you'll get some mileage with that?

Greg Everett: There you go. Cool. Well, what's going on with you? Getting more sleep?

Robb Wolf: A little bit more sleep. I can't say that it's really helping at all but I think I'm sleeping a little more but I feel even worse.

[Cross-talk]

Greg Everett: You have a large debt to pay at this point.

Robb Wolf: Yeah, a big debt to pay. And then I sort of talking to Nikki's dad about redoing our backyard because it's a disaster and so he's completely mister fix-it, can build the house from scratch.

I could do none of that, so basically I've been doing grunt labor type things and I shovelled like five yards of dirt the other day and dude, it was a kick at the jimmy.

Greg Everett: Oh wait was it worse than virtual shovelling?

Robb Wolf: It was in fact worse than virtual shovelling. I was out in the sun and I worked on my tan a little bit but dude, it was an ass kicker.

Greg Everett: Did you do a hundred glute ham bench sit-ups right before you did your real life shovelling?

Robb Wolf: Yes.

Greg Everett: Just to make sure your back was extra stable?

Robb Wolf: I did it. I did glute ham sit-ups until my abdominal fibers were shredded apart. There was no possibility of anterior stability coming from any day.

Greg Everett: You need to make sure that you don't do anything that requires back shrink until you have full scrotal edema. And then you know you're prepared.

Robb Wolf: [laughs] That's good to know [laughs].

Greg Everett: I feel sorry for everyone who listens to the show who has no idea what we're talking about 90 percent of the time. Well, you'll just have to believe me that it's funny.

Robb Wolf: We only know what we're talking about 80 percent of the time. So it's consistent.

Greg Everett: Yeah, that's a generous estimate [laughs]. Alright, well, should we get on with this and prove how little we know?

Robb Wolf: Yes.

Greg Everett: Alright.

Robb Wolf: Let's do that.

Greg Everett: I like this subject line nobody ever says "Wow! You carry a lot of tension in your abs!" or "Why don't dogs need massages?"

Martine says there's something suspiciously Neolithic about massage therapy [laughs]. Why do I live and die by when my last deep tissue massage was. I minimize sitting and get a good sleep on a firm mattress. Maybe I have farther to go than I think reducing some stress in general.

And why is it everyone's back? Maybe structured repetitive work outs are to blame. More playing and helping load, moving vans. I always thought piano movers have the most primal occupations. [Laughs] All those paleolithic grand pianos [laughs].

Robb Wolf: No way. It's not just ivory but they make the actual case out of stones.

[0:05:00]

Greg Everett: Did they have some kind of piano or organ in the Flintstones that's made up of dinosaur bones or something?

Robb Wolf: Yeah, and I think they have like a mammoth that blew its nostril into it to power the whole thing.

Greg Everett: That was base on true story, right?

Robb Wolf: Yes.

Greg Everett: By the way, have you seen the ads for this Abraham Lincoln vampire slayer, vampire killer movie?

Robb Wolf: It looks completely bad ass.

Greg Everett: Dude, but here's my concern. The kids who are coming out of high school in this country right now are already stupid. I'm just gonna say it, plainly.

[Laughter]

I'm not even joking when I say that I can guarantee you that a large percentage of our future high school graduates are going to sincerely believe that Abraham Lincoln fought vampires prior to his presidency.

Robb Wolf: Yeah. I could see that happening. I mean instead of uniting the union, fighting the civil war, all that stuff then he's a vampire slayer.

Greg Everett: I heard something about like an exit exam of I think he was Stanford graduate at another fairly reputable college and something like 80 percent of him couldn't place the American civil war within a 50 year period. I mean, but they all knew Britney Spears trivia and stuff. We're all gonna die.

Robb Wolf: Well, this is completely diversionary obviously [laughs].

Greg Everett: Yes, stay on topic Robb come on.

Robb Wolf: The other day, I forget what the thing was. But I was maybe it's better we don't get off this rock. Maybe we should stay here until

the sun expands out to three quarters the orbit of Mars. And Mars becomes balmy again and we just get recycled. Yeah I remember the topic and that I'm not gonna go into it. People will come and kill me before the sun expands and consumes everything.

[Cross-talk]

I don't know man. I'm reading this book Wool. Sorry guys. I'm exhausted.

Greg Everett: I'm just normal.

Robb Wolf: We're just jabbering. So Chris Kresser told me about this sci-fi novel Wool which is really interesting, kind of dystopic.

Greg Everett: Wait, wool, as in some kind of stuff that comes off the sheep's back?

Robb Wolf: It is. But it's kinda different significance in this thing. It's this classic scenario of like kinda live of an authoritarian state. And it's just really interesting because on the one hand, you have this authoritarian gig where people are either are lazy or dumb, whatever so you need somebody that's in control shoe horning people into stuff.

Or you have this more free lackadaisical gig but then you start getting stuff like Snooki being an authority on anything like parenting out, playing stuff like that.

Greg Everett: Oh God.

Robb Wolf: It's just a weird deal. Like it's legitimately a really weird deal. Like if you allow people the ability to just be free and think on their own and everything like some good stuff comes out of it. But then some really ridiculous shit comes out of it too.

Greg Everett: What is this stuff?

Mr. Steven Pan the other day was telling me something that he read. He was like; just kinda reiterating the fact that the internet, 99 percent of the people are reading, 1 percent of the people's content something to that effect.

Okay, well, so, why don't dogs need massages, Rob?

Robb Wolf: I've seen a number of dogs with massage therapists around them and they seem to do pretty well. So maybe hounds do need massages.

[Cross-talk]

To some degree I think this goes into little bit of a deeper deal where I was just talking about people being crazy, and we shouldn't get off the planet. And here I am gonna lead into one of these prime things that causes people to insight craziness. I'm gonna bring up the evolution topic [laughs].

When you look at the structure of our pelvis, our pelvi, [laughs], collective pelvis it's a work in progress and it's not, when you look at the low back and you look at the structures of the pelvis and everything it's a compromise between particularly on the female side being able to birth children.

[0:10:00]

And we had an interesting conversation on the paleo science list or something like that which was basically that like a hunter gatherer brains were bigger and the head size was bigger and the pelvis was larger in the females and all that stuff has gotten smaller and one of docs on the list made the analogy that for the hunter gatherer that you're basically talking about a Ferrari. You're talking about the big, strong, smart, the epitome of the species and also really low output.

It's kind of like an artisan deal whereas when you've got macrocultural scenario, you're pumping babies out like crazy and so you need smaller heads, little bit of a compromise on the birth canal because of some of the demands associated with agricultural work and all these stuff and it was an interesting gig but the low back issues just in general and the more westernized, the more we sit in chairs, the more that we're not squatting all the time and stuff like that, the more that this back problems ensue.

You get tight hip flexers. You can get tight hamstring, weird loading parameters and stuff like that. It's just kind of endemic and the thing and I think that part of this question like the whole massage deal that that's – I'm trying to collect my thoughts here.

So you've got this naturalistic world where we just live under bushes and we scratch around and we do whatever we're doing and then you start getting this understanding of how the world works and/or maybe you don't even understand necessarily how it works but some empirical findings which you're low backer, if you have somebody rub it, it doesn't hurt so bad.

And this is kind of the beginning of medicine that you know, in distance case I would put massage under the physical medicine category and add orthopedic adjustments, chiropractic deal, osteopathic adjustments and stuff like going all the way down to taking a broken limb and being able to extract it and reset the bone and stuff like that.

So, a bunch of this stuff maybe isn't necessarily naturalistic but as we start developing technology and understanding of the world or even just an empirical observation like, "Okay my low back hurts. If I have somebody stick their elbow in it and kind of wiggle the elbow around, it makes me feel better."

And then when we start doing tissue histology and stuff like that, we realize that it releases cytokines and maybe breaks up calcifications. Another thought on this which I know this is probably the last show that people ever listen to. It's like the most rambling bunch of ramblitude ever but I think actually abdominal massage is really beneficial for digestion. A lot of people end up having adhesions and scar tissue from falls. They can get adhesion from the diaphragm so the inhalation, exhalation doesn't really work that well. I'm a big fan of massage actually and yes, it is pretty Neolithic but it's –

Greg Everett:

So is the computer you use to send that email.

Robb Wolf:

Yes totally and this is where getting too geeked out on historical revisionism I think is problematic use it for guide. I know that Martin is being tongue and cheek on this whole gig but I think back problems are related to structural compromises that have evolved at the low back and the pelvis to allow us to be effective at the whole hunting gathering kind of gig and I think that to the degree that we stay more mobile, that we tend to squat more versus sitting in chairs and stuff like that.

I think that we tend to minimize problem with that. I think we talked about the ileocecal valve on previous podcast for a long

time. You can dig it up in old medical journals where people would say, "Wow, isn't it odd that we were so poorly designed, that we were so poorly created."

That feces kind of back from the lower in the GI tract to higher up in the GI tract and you get this biosis, some problems and the reason being is that when people sit on kind of an elevated toilet, you don't create the intro-abdominal pressure that pushes the ileocecal valve down and so when you relieve yourself, everything goes one direction. It goes downward and it was a simple deal of like people if you just have people squat to relieve themselves, then this problem is solved.

[0:15:19]

Robb Wolf: And it's actually the dude that made this squatty, potty thing sent me one of their testers and I use it dutifully every day. I have some design recommendations for those guys because of the thing is a little bit shaky and I've almost taken a dive off of it for a time or two but there's just stuff like that where I think if you can use some of this evolutionary template and overlay it then we can answer some questions but then we certainly want to take all that we know out of medicine and science and all that and optimize these two things.

And I'm sure that that went so far a field from what Martin originally meant that she may just run and leap out the window when she hears this response but that's what I've got.

Greg Everett: That was fantastic Robb, don't beat yourself up.

Robb Wolf: Thank you. You're very accommodating.

Greg Everett: No, I think that yes you've kind of made this points somewhere in there but I think you have to recognize the fact that no matter how much you try, you are not going to be able to perfectly replicate a paleolithic life especially with regard to the types and degrees of stressors. There's just no way and so I think you have to understand that yes a lot of people kind of carry their stress so to speak in their lower backs, not everyone though. I mean I know plenty of people with it's all neck problems or GI problems. I tend to be a lower back person myself too but that's probably just because I'm a little chubby.

Robb Wolf: I love big bones. You look just fine there.

Greg Everett: There you go, thanks. I'm just trying to be myself and now I'm totally off track. I guess my point was that you have to understand that you can't totally replicate the paleolithic lifestyle and so you're going to have to accept some of these kind of side effects of this more Neolithic nature of stress in terms of kind of this more chronic low level stressors rather than this more punctuate, acute stressors and it's going to affect you a lot differently and so you may have to make up the difference with Neolithic practices such as massage therapy or sitting in a hot tub with your champagne whatever the case maybe, possibly both together.

Robb Wolf: Dude, I want to bypass the champagne and start growing opium poppies in my backyard and just chew on those.

Greg Everett: There you go.

Robb Wolf: Go right for the opium receptor.

Greg Everett: Hey, you have the perfect chance. You're digging up your backyard right now. You just need nothing but coca plants and some good old poppies.

Robb Wolf: I think Reno is more along the lines of Afghanistan so I think I'm more likely to be able to pull of the opium poppies so yes.

Greg Everett: It's worth a shot either way.

Robb Wolf: So, Martin, good questions, horrible answer. That's about as good as it's going to get today though and that's all in my cup of coffee and my nicotine gum so that's as good as it's going to get.

Greg Everett: Cool. All right well, let's move on with plantar fasciitis Ben says," Hi guys, straight to it. I'm a professional rugby player in New Zealand; have been for 8 years. Last couple of seasons, I had problems with plantar fasciitis when playing on hard grounds and so the medical stuff prescribed me orthotics especially designed for me."

"In the four weeks, I've been using the orthotics, my sacrum joint blocked up one week, got a killer bout of osteitis pubis the next week. I've never had it before but it seemed to clear up my plantar fasciitis and also cleared up my pinch I have in my hip joint

from my labrum tear a few years back and takes pressure off my old toe injury. Maybe the orthotics have aligned me "perfectly". However, I've gone my whole life being imperfect as my left leg is slightly shorter than right."

"Are these orthotics the cause and throwing me completely out of kilter or do I persevere when my adjust to them over time? P.S. My wife is threatening to divorce me if I scratch my balls one more time when in public with her. She says I'm itchy from the gluten and grains I eat. This is probably a question for another day. Thank you so much, Ben."

So I just want to interject here real quick and people every once in a while post questions, "Why is your podcast listed as explicit in iTunes and this and that?" I just want to say it's not entirely our fault. We just do [cross talk]

Robb Wolf: We upgraded the culture. I mean if we weren't the way we were, people would not write in telling us that their balls are itchy.

Greg Everett: I don't know. I don't know. I'm not ready to assume the entirety of our responsibility.

[0:20:00]

Robb Wolf: Yes. The end there, the fact that you are still eating gluten and grains, I remember Josh Everett had a wicked case of plantar fasciitis like it seemed like he had it for two years and I just begged the dude to just try eating better paleo because he ate pretty well. He's a big strong dude and all that but if I remember correctly, like the plantar fasciitis cleared up within days of pulling the gluten out of the mix.

So, I mean if any time we've got any type of -itis, inflammation of something; we've got some heat going on; we've got inflammation and I just can't make a strong enough argument, for again, a 30 day intervention particularly during the season to go as tight paleo gluten free paleo as you could; make sure your vitamin D levels are good. That's just the gimmick and although orthotics aside, still many of these problems whether it's plantar fasciitis, patellar tendonitis, IT band syndrome, carpal tunnel.

I mean all of this stuff, if you do a little digging around in the literature, really high linkage with high insulinism, with systemic

inflammation, correlation isn't causation but it's god damn compelling when you see it again and again and it's a really simple thing to do to just give this a shot and something to consider with this too. If you have chronic inflammation in whatever trunk of tissue you've got, you are laying down scar tissue in that area.

You're compromising the long term integrity of that tissue and the likelihood of having something of a catastrophic injury down the road is much greater. So I mean it really behooves one to address this issue both orthopedically and nutritionally and lifestyle wise, stuff like that. Rugby obviously is pretty rough on the body. This dude sounds like he's strapped to the outside of a car during a destruction derby or something. So he's got some pretty good mileage.

But as to the orthotics like this is definitely my strong area of – it's a bit outside my wheelhouse. I'm okay on the orthopedic side of stuff but not spectacular. This could be a situation where your body is going to adapt to this new positioning. The fact that you've got one leg shorter than the other, that always seems to benefit from some sort of shimming to equalize that so that we minimize that bilateral stress on the pelvis and everything else that goes on from that.

But whether or not you're going to eventually get to a spot where things normalize and your body is happy from the feed upward because of the orthotics, I really don't know. I know some people are super geeked on orthotics, other people are a little bit more sanguine about their usage, so I really don't know. Greg, you've got some tinkering with this stuff and worked with some people that do orthotics more. What are your thoughts on that?

Greg Everett:

Yes, well it's definitely to be expected that you're going to have some discomfort and some achiness and some what not especially in the knees and hips, sometimes lower back and everything when you first start using orthotics. That's pretty much a given. It sounds like your reaction to it was a little more extreme and so like Robb said, I don't know if there's really a way to predict whether or not all that stuff is going to clear itself up eventually and you should stick with it.

I would say though and I feel like this is an old question. I think we've seen it before when we had the skip it so hopefully this is even useful at this point but I would say try to stick it out because

it sounds like the reactions you are getting to them are acute and temporary and you kind of cleared them up and it has cleared up the chronic problems you were having trouble so to me it seems you are coming out with a net benefit.

That being said, I used to work with a physical therapist down when we were in Southern California who made a good point to me at one point. He was like, lot of this therapist are looking to kind of rebuild this people's bodies perfectly. That's their goal is to get everything aligned perfectly and have it fresh out of the box or the setup and he's like, "I think it's a really mistake because people are not built perfectly by nature and you're going to have this little disparities side to side, front to back whatever."

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Greg Everett:

And he said, "The goal should be to try to make everything function optimally within those parameters rather than trying to rebuild a person in a manner that they aren't meant to be built." So it's like you have to try to correct this stuff to a degree but not exceed that degree and try to correct things are not going to be helpful once you try to fix them.

So, I would ride it out for a little bit and just pay real close attention to the other issues you have and hopefully by now, since this question is probably 10 years old, all the problems have gone away and maybe it had even cleared up your jockage, who knows?

Robb Wolf:

Or you're a little bit more tactical about it the rest of the jockage so yes. What do you feel like is a good timeline you would give this thing? One thought also and this is going back to our question one. It seems like this a great spot to get in and start doing a ton of foam rolling; maybe track down a really good body worker doing some roll thing. This is the time to do some earlobe to toenail structural integration type of stuff to try these things along to get back and doing this during season may not be the best time to do this too.

Greg Everett:

Yes and that's a good point. Doing it while you're playing games is probably poor timing. It definitely seems like a good off season so you can do, like Robb said, do the structural work; try to shore everything up with the orthotics; kind of rewire the movement patterns and what not.

It's like if I had a lift here who I thought needed the orthotics, I wouldn't have them put them in two weeks before a big meet. It would be right after a big meet for examples where we're just starting a new cycle and we have a ways to go so we can see how things go and write out whatever problems that are maybe but again that's – he can't necessarily do that. It sounds like he's already a bit through the process.

So in terms of how long I would give it? I don't know. I mean he said he's already been doing it for four weeks so to me that's a pretty good amount of time. Like I would say that that's probably a good short and in that time, he said it cleared up the fasciitis and helped the hip out and so aside from that, the two other problems it sounds like it's kind of working so if those other problems have just kind of popped up once and then never reappear then I think you're definitely good to go. If they continue to pop out every single week or something like that, then obviously you need to look into a different kind of correction. Maybe something like less intense orthotics shape.

Robb Wolf: The only thing like this that I've ever had was when I really was trying to give Olympic weightlifting a go and to do that effectively, you've got to wear some shoes, O-lifting shoes –

Greg Everett: Which is totally not paleo.

Robb Wolf: Which is totally not paleo but that upright torso that the catch position is so critical for being successful with that and it would – every single time I would get to a spot where I had such knee pain and then just distal to my patella like just the periosteum on my fibia were just kind of like ripped off at some point and I suspected it was always a deal where like if I lowered the loading, did way more foam rolling and stretching and stuff like that that I could probably have got through the thing but I'm both busy enough and lazy enough.

My general body maintenance is pretty good. I've generally got good mobility. I can do most things really well and not with pain but this was one of these things I just never could quite get over the hump with it and wasn't willing to put in the time to make it go which kind of sucks because I kind of liked the lifts and so I just have to tinker with the power variance now but I still think if I've given my body more time, lowered the loading, really got

aggressive on the body reintegration gig, I could have probably gone over the hump and been able to O-lift more effectively.

Greg Everett: Yes, all right. Well that's enough on that one I would say. I think we have a good enough answer.

Robb Wolf: Or a bad enough one.

Greg Everett: Okay Luke says, "Background, several outfits are offering various flavors of blood work, Quest & Labcorp, wellness effects, etc. What is the "list" of blood/urine test before, during and after a paleo challenge? Question number two, what is your estimate of such a cost of such a blood/urine workout? Question number three, on a regional perspective, where would such a blood/urine workout would be most lease expensive? In other words, instead of having it done on Silicon Valley, have it done on Reno during a previously schedule Sierra weekend."

Robb Wolf: Everything's cheaper in Nevada so –

Greg Everett: Although, all those Quest & Labcorp, they're all a single company so the price is the same because they're all building insurance for the most part.

Robb Wolf: Yes, interesting deal, I just had dinner with the folks who are the specialty health folks who are doing the risk assessment deal here in Reno and then we also had one other reps from LipoScience which is a really high end advanced testing – It's the advanced testing that we use on the police and firefighters when they go through the basic risk assessment that we offer which is totally standard bloodwork like total cholesterol, triglycerides, blood glucose, fasting insulin, CBC with a differential and all that jive.

If somebody ends up flagging that thing like they have super high LDL levels then we end up doing some advanced testing on them. High LDL levels and/or super high triglycerides like basically if they're chilling some sort of an insulin resistant profile then we kick it over to an advance test and on the advance test, I posted some videos on this but I should probably do a blog post on bloodwork and kind of how my perspective is kind of evolved on this stuff.

What typically happens when we are looking on the standard intervention, when we look at HDL, LDL total cholesterol, you've

got this lipoproteins, high density lipoproteins HDL, low density lipoproteins LDL and then VLDLs and then intermediate and all that give but you've got a particle that is mixed up of this protein fraction that helps to move cholesterol through the body because cholesterol is a fat soluble, it's a lipid soluble item and it kind of needs a protein chaperone to be able to move it through the aqueous medium of the body.

And historically, what we've looked at is just the cholesterol fraction of these particles and Dr. Tara Dall of the National Lipid Association, she is a brilliant woman and incredibly easy on the eyes also. We're going to have her on the podcast when we need to make that one a video podcast because she's just beautiful woman, really smart, super cool.

But she makes this point that you need to think about this that the problem is not the passenger, the cholesterol where we're talking HDL or LDL but it's the cars. It's the actual particles themselves and part of whatever starts going out and say like an insulin resistant situation and a hyperthyroid situation is that we tend to start shifting the LDL particles from large and puffy to smaller.

And typically what happens with the small dense stuff, they have a higher likelihood of interacting with the intimal media of the vascular bed. It's just kind of a statistic thing if you've got more and more of these things peppering around on the inside of the arterial wall, the vascular wall, you've got a higher likelihood for some sort of a problem to happen and it's kind of interesting usually what happens is you've got a given amount of cholesterol that's circulating through your body.

We'll just say like 100 mL of low density cholesterol. If you have large particles, each one of those particles can carry a relatively larger amount of cholesterol so that 100 mL of cholesterol gets carried by fewer particles. Those particles tend to interact more favorably with the interior of the vascular lining and so things are better.

If they are smaller, then you've got way more little carrier units moving the stuff around and they tend not to interact with the LDL receptor sites as well in our tissues and we tend to have higher likelihood of problems. So, the additional work, you're still going to be kind of – unless you want to throw down some really serious

money, you're still basically going to be doing your basic profile like total cholesterol, HDL, LDL, triglycerides.

I would really recommend that people do vitamin D. It's a little bit of an add-on. It's like a \$20 add-on, something like that. If you can throw in some hormones appropriate for your situation, if you're a male like total in free testosterone, sex hormone binding protein and stuff like that. Females that plus estrogen, I think almost everybody should probably be getting their thyroids checked, TSH kind of a full thyroid panel.

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Robb Wolf:

But when you're talking about that basic total cholesterol vitamin D, CBC with diff, you're probably talking maybe \$125. When you start throwing on each one of these additional pieces like you want to throw thyroid panel, that might double the cost of the things so you're talking about \$300 or something.

So, it just kind of depends on what type of money you want to throw out there and really what type of risk analysis you're doing. If you've had long standing cardiovascular disease in your family like both of my parents had heart disease pretty much from their 30s on so I've actually taken a little bit more of an interest in tracking my stuff and my stuff's been going great. The numbers look good so I'm kind of stoked. I'm still a little bit more interested in tracking that stuff just curiosity sake and kind of validating what I'm doing is working.

But there's advance testing like adding in LP little A which is a really inflammatory kind of biomarker or lipid marker. That one is definitely worth tracking doing the full MNR analysis of your particles. It will give it a total count. It will give it sizes. That stuff starts getting pricy like you start getting potentially up in the \$400-600 range to do that whole package but backing up when we first launched into this train wreck of an answer.

We are trying to put together through the specialty health folks. If all these stuff comes to past, we will have a contract with Labcorp and with LipoScience. Labcorp is just kind of like a big meat and potatoes. They do all the bulk testing. They do hormone testing. They can do intestinal permeability testing and stuff like that but we'll be doing work with those guys and with LipoScience to do

initial screening and then advance testing on the people that are appropriate for that.

Folks will be able to buy that through the website and we'll be able to order this stuff direct and because we've got more than 6 people listening to the podcast now, a few more and if the numbers are there then this stuff should be really inexpensive compared to going to your doc in the box and ordering this stuff through Labcorp and just getting hammered with the standard markup on that stuff.

So we should hopefully by the end of the summer have some sort of a specialty health Robb Wolf combo deal where you can order blood work that you are sent the results. Those results are pumped to specialty healthy which they are a health management organization and they've got like 1.5 million people in their database and then you will have a doctor that you can kind of interface with and that individual can give you some guidance about like, "Hey, you look like you're going to live to be older than George Burns or whatever."

Greg Everett: Is he still alive?

Robb Wolf: Yes, I think he is actually. He's still smoking cigars and chasing chicks.

Greg Everett: What a badass.

Robb Wolf: He totally. Or if you need to, it will be recommended, you should probably get some advance testing and you should follow up with a doctor and then the cool thing is that the physicians' network is getting large enough that we're getting close to getting somebody within spitting distance of most folks and then we have the certification that's rolling out and we're going to do some work with the specialty health folks so that people are savvy about – these practitioners are savvy about how to order test, how to interpret these tests.

We're going to have Dr. Tara Dahl doing some work with them through the national lipid so I'm hoping that in four-five months, at the outside, we'll have at least the beginning of this direct to consumer opportunity for folks to order blood work and have it in a lower price and I think more importantly than that, I like the wellness effects folks but if you do a little poking around the nose

guys, they've got like four or five hundred people total in their database.

The specialty health people, they've been in business since I think '91 and they have over 1.5 million people on their database so when we start talking about the ability to do some really robust statistical analysis and do some risk predictions, risk forecasting, I think they've got a really solid database on that stuff.

[0:40:04]

Robb Wolf: So anyway, it wasn't my intention to turn this into an infomercial for this thing but to just let folks know that that's kind of what's cooking and in the meantime, you can do some shopping around between Labcorp, Quest all these other folks but the prices are kind of fixed because you're dealing with a relatively low volume of people interacting with these folks and I think it's reasonable to start on the very conservative side of this stuff.

Do a very basic CBC with differential and you're basic total cholesterol kind of gig and if you see something that pops up that's kind of concerning like you've got some pretty high total cholesterol, you've got some really high LDL and low HDL and stuff like that, bad triglycerides, then we can do some advance testing and do some more investigating in that line.

Greg Everett: Fantastic advice there Robb.

Robb Wolf: I just made it all up. There's nothing factual about any of it so.

Greg Everett: That's okay. Brad says, "I've been on a very strict paleo diet since April of 2011 with maybe one, two cheat meals per week with some period of challenge with no cheats. I noticed a sudden onset of hair loss when starting the diet and has continued progressively over the past year."

"Before paleo, I had no hair loss. I'm curious to know what may have caused this. Is there a lack of vitamins/minerals in my diet? Is it a high level of protein causing the hair loss? Is it possible a change of diet will inhibit regrowth of any loss hair? Also, are there specific foods that I should be including in my diet that may help in this?"

You're also 1 to 2 years older than you were when you started. It's kind of like when people start shaving and they say that shaving makes their beard grow but it's just because you didn't have – you just started shaving when you started going through puberty. I don't know Robb is there more to it?

Robb Wolf:

The one things that kind of pops up on this stuff that I think people could be a little deficient on in a basic paleo stick is iodine. I think reasonably it's easy to end up iodine deficient because folks are typically limiting salt and maybe iodine just standard iodized salt. They're not eating a lot of sea vegetables. They're not eating a ton of seafood.

So it's a possibility and this is something that doing a basic thyroid panel and testosterone and all that stuff could fair things out. It's still there's this thing though if you just went back, how are we usually – to answer one of these questions is a high protein intake and stimulate hair loss. I really don't think so like the things that we know for sure in the literature alopecia like male pattern baldness type stuff, really heavily correlated with elevated insulin levels.

And this is something that we've seen out of like the comparisons of traditional Japanese diet versus when Japanese people move to the United States or different westernized areas and then you start seeing male pattern baldness and there's a big piece to it that is insulin mediated causing basically the death or the damage of the hair follicles and there's some testosterone interplay with that stuff.

There's also some autoimmune alopecia. I don't want to just be the complete diehard paleo champion but it's one of these things where it's generally what we're talking about is swapping out like bread and rice and pasta and eating fruits and vegetables, roots and tubers and protein carb fat is approximately the same or maybe there's a little tweak on the ratios but it doesn't really make sense that that's going to be the issue.

But by all means, you can go back and eat the other way that you were eating previously and see if it rectifies things but it doesn't really make much sense to me, vitamin D level. [cross-talk]

Greg Everett:

Well, but if we're talking about male pattern baldness, I mean isn't that just one of these things that you're going to have to

accept and just shave yourself and just go like Michael Rutherford style and just be after sexy with that bald pate.

Robb Wolf: I don't know I mean – again, my gut sense on this stuff is that a lot of this is driven by insulin but if you transition to a low insulin, low diet and that's when it starts, that's where it gets murky like –

Greg Everett: What if his testosterone levels suddenly shot up like 500%? It seems unlikely.

[0:45:02]

Robb Wolf: You can get some – that's the whole testosterone, DHD, dihydrotestosterone conversion and that is one of the factors that is involved in basic hair loss.

Greg Everett: All your hair will leave your head and goes to the back.

Robb Wolf: Exactly, yes and you see this a lot in anabolic steroid use. You can get a similar effect out of that. I don't know. It's hard for me to hang this thing on better eating and again the main spot that I would suspect might be going on is that there could be potentially a little bit of low thyroid, potentially some iodine deficiency but beyond that I just can't think of a mechanism that would really drive that thing when we know that autoimmunity and insulin are kind of the main drivers.

And yes maybe he's still because of a wacky work schedule or low vitamin D. He went paleo, testosterone went up conversion into DHD was higher than what we would like and that's what's driving this things and I guess that that's where you could do some blood work and look at testosterone and thyroid and all the rest of that and try to ferret some of that stuff out but it's hard for me to hang it on this.

And again, I don't want to be the total paleo knob polisher on this thing but it's just to imagine that going towards foods that are less inflammatory, less likely to cause autoimmunity, less likely to promote insulin problems that that is going to be the issue.

Greg Everett: All right. Okay, finally we have a long question again and it's going to get explicit so. Okay exercise for weight loss. Warhammer says, "Hi guys, big fan of the," blog, blah, blah like everyone says. Let's get to the fitness. "I'm 6'4, 225 pounds, gray-blue eyes, Taurus.

After following the Neolithic graduate student functional alcoholic diet on shelves soon, already on Kindle, I'm in serious need of this paleo solution."

"I read the book, super psyched about it. Can't believe the cultural norms would carry about food," zeal of the new convert, etc. "I'm working toward my 30 days of total compliance and feeling great. I literally shit diamonds yesterday. I have read in your blog that you are not a fan of exercise for weight loss," see and then link to that blog post.

"It seemed like you were mostly concerned with exercise centric approaches. Anyhow, nowhere in your blog or podcast do I see a theoretical or practical approach to the role of exercise in weight loss. It was referenced a bit in the book but not much. You mentioned helping Nathan get his Brad Pitt abs in a podcast but what do you recommend for someone who wants to lose a considerable amount of fats say in my case 80 pounds? I can't believe you can be anti-exercise for promoting weight loss considering you're ass owns a gym but maybe you just like being around sweaty people. That's cool. It takes all kinds."

He seemed to get a little pissed on people who wants to "lose weight" and then he links to another blog post. You tell them to pick a performance school and stop talking about the scale. I think this is inconsistent because when people have asked how to look like Brad Pitt, you're not bulked about getting advice on how to get them from slim to sub-10% body fat so why don't you throw the fatties a freaking bone here and talk about how best to work out to promote fat loss over a longer haul."

"And if you need a performance school then it is to go tantric in the sack with a supermodel. There. Now get me in the gym under 10% body fat to increase the chances of this occurring. P.S. I fucking know how to sleep already. You have drilled that into me so if you tell me to sleep I'm going to go fetal and cry. All ribbing aside, I'm so thankful to you and I'm just really hoping to get your opinion here. All the best to you and the new babe."

Robb Wolf:

Wow, that's a lot.

Greg Everett:

Man, that moniker there is pretty appropriate for a number of reasons.

Robb Wolf: I think Warhammer should take over the podcast. I think we've been outclassed here. So the first link here exercise ineffective for weight loss, this is just some of the stuff that floats around the research where Gary Taubes talks about this a ton in his book where people will start exercising and when they exercise and they're appetite increases and they tend to match food intake to pretty closely meet energy expenditure and so the fat loss, weight loss deal is kind of problematic.

[0:49:50]

Robb Wolf: My main thing is just and because my ass does own a gym, we get people constantly through the door who just feel like if they go another 30 miles and God the fucking cyclists are the worst on this where if I spend another hour, if I do the fast 40 and I still can't figure out why I have a gut but they'll do this ride around chico and pull in this here in Nevada and have a bunch of beer and some really good food.

Greg Everett: Oh man they have the beer sampler there. It's like 16 different types of beer all in a tray. Not that I'm recommending that of course.

Robb Wolf: Yes and it's absolutely delicious. It would give me the trots for a month, but we just consistently see these folks that thinks that exercise is going to be the solution here and there is this point where bad diet, cock blocks any efforts that you have exercise and you start getting in this hyper insulinimic kind of merry go round where you're eating that food and when we start getting into that and I know that –

I'm going to get hammered because the end is end is going to be spiky.

Greg Everett: You're going to get warhammered Robb.

Robb Wolf: I'm going to get warhammered. Does insulin spiking cause insulin resistance? Maybe, maybe not, yes, no, it's food palatability, fuck, whatever, you get so far down the rabbit on this stuff trying to figure out the mechanism that I think you lose the ability to actually help people but the reality is if this bad food seems to setup either some sort of an insulinogenic event or a systemic inflammatory event and we start heading down this road where

we start getting into blood sugars highs and lows when we dip into the lows, we release cortisol.

When we release cortisol, blood sugar goes up, we start – even though blood sugar may actually legitimately kind of high but the sensing between the brain and the liver is off and we start getting into that merry go round. I talked about it a ton in the book. That gets us into a gluconeogenic state where we start tearing down muscle mass to generate sugar load for what is either legitimately or perceived to be low blood sugar.

And so this is the problem that I see on the exercise side. There are a lot of people that just assume that they can just keep exercising harder and they will burn off the shitty food that they eat and that just doesn't happen. That they can just keep exercising harder and they will burn off the shitty food that they eat and that just doesn't happen.

And now, for the people that really want to lose weight and this pops up on my Twitter feed all the damn time, the person is like hand ringing, "Oh, I've been eating paleo but i've only loss two pounds. I don't know what to do." And the person starts spending out and this is why I focused people on a performance goal because a lot of times, these people are not enough then.

They're not eating enough thing that distracts you from sitting there thinking about your weight every day, all the time and every time you cruise through your bathroom like jumping on the scale and because you weren't sweating a lot today or maybe didn't have as big a bowel movement as you did yesterday then the person spins out and they start doing stupid stuff and so the performance orientation, I just have found to be really effective for shutting people up long enough to eat well enough to be able to effect some type of change and so that's why I make these recommendations.

And I think if you find kind of your carb tolerance level and you go a little bit below that then you generally are eating a little bit of a calorie restricted approach and if you're eating higher protein and probably eating more fat and the carbs that you're eating are intelligent then you should start dealing with some of that neuroregulation of appetite so you aren't as hungry when you start exercising and you've got a fighting chance of actually losing some weight.

You probably are still going to be a little bit hungry but not horrifically so and so a lot of these is just kind of having one – you've got a variety of people out there, a various variety of people as Greg might say and you need a little bit of a different script to be able to meet those people and so from where you're at, I would go more on the low carb side. Maybe it doesn't need to be ketogenic 30 grams of carbs a day but probably under a 100 grams of carbs. Eat a lot of protein. Eat a lot of veggies and get in and start doing some smart exercise and I think you'll probably do really well with that.

The protein is going to be really satiating and it's going to address that neuro-regulation of appetite and just be intelligent with the training that you do. I think like some moderate to high volume body building type stuff so that you're both burning calories and you're building muscle and then doing some interval type stuff ranging from the real short end, you know, Tabata type stuff, 20 seconds on 10 seconds off all the way up to 3 to 5 minutes more aerobic type intervals just mixing all that up.

[0:55:17]

Robb Wolf: This is kind of a crossfit-esque thing is really helpful as long as the volume and the intensity is smart. You don't beat the dog piss out of yourself.

Greg Everett: Yes, I think the thing to keep in mind to is that no one's really saying or at least Robb is not saying that exercise is going to have no effect on weight loss. That's really not the point. Yes, it's going to help but I think like he has said there that people get really hung up on the exercise side of things because to be quite honest, that's the easy part.

Anybody can go spend an hour in the gym a day. It's not a big deal even though they bitch and moan about it. When they do it, they brag about it as if it's some amazing accomplishment but the nutrition side of it is so much more difficult, it requires so much more discipline because that's all day long every single day and in my opinion it's way more difficult to stay disciplined with your nutrition than it is to force yourself into a gym or to do some kind of physical activity every single day for 30 to 60 minutes.

And so I think it's kind of unfair to say, "Oh well, you're saying exercise is nothing to do with weight loss." No, it's going to help but I can point out plenty of examples in my own gym of people who are just not willing to put in the effort into their nutrition and so they look the exact same day in day out even though they're in here consistently exercising and their strength number is going up, the performance is going up but they're drinking beer every single night and they're eating like shit.

Well guess what? They're still going to be chubby even though you might argue that they're more fit than they were when they started. Their body composition doesn't really change dramatically and then we have right next to them training, the guys who came in, bought into the nutrition part of it that we really don't push. We kind of say, "Here's what we suggest either do it or don't. I'm not going to hold your hand. I'm sure shit not going to baby you through the process."

If you want to do it and you want to make progress, here's how to do it and those are the guys who not only are their performance numbers going up, but their body composition is going through dramatic changes. I mean you're talking about losing 50-60 pounds and keeping it off versus just kind of being the same as they were when they started and so it's like you've got to take care of the whole thing.

You've got to do it from stem to stern not just pick the one things that you like better or that is easier or that seems more reasonable to you so I don't know maybe that's more an angrier response than I intended it to be but it's a little frustrating people when you have people walking into the gym wearing heart rate monitor and they do it all day long.

And you ask them, "Hey, why are you wearing that thing?" "Oh, so I can know how much I can eat today." It's like oh my God, you're going about this all wrong. It's like testing – looking and see how many calories you burn from the treadmill so you know, how many pieces of cake you can eat tomorrow. It just doesn't work that way so that's my 2 and a half cents on that whole thing.

Robb Wolf:

So I guess just keeping in mind that it's always challenging when you've got a really mixed audience that you're playing too. If you do something where you just focus on like I'm going to do like the lean, gain steel and just focus on people that want to do body

building and figure stuff, you can really narrow your message and be very consistent with it but I'm trying to reach a pretty broad audience here people ranging from kind of high end performance all the way to although I got to say my kind of interest I think the most important stuff we're doing is more focused on like saving people's lives but just getting into the not metabolically broken and maybe think about some autoimmune and systemic inflammatory stuff.

But with that in mind, you need a variety of messages out there because you have enormous number of people that are in different places in their life and how they're approaching all this stuff so I guess just to keep that in mind too.

Greg Everett: Yes. Well we managed to stretch out five questions to an entire hour.

Robb Wolf: Wow we rambled today.

Greg Everett: No, we were just thorough.

Robb Wolf: Okay.

Greg Everett: That's different. Thorough is much better than rambling.

Robb Wolf: Yes, I like that cool.

Greg Everett: Well?

Robb Wolf: So anything else? Any parting bid that folks need to be aware of?

Greg Everett: I don't think so just if you haven't checked out the new book already, go check that out please and if you loved it, you got it, please post a review on Amazon or on your blog on your face space or twatter or whatever it is you do to tell the world what you feel.

Robb Wolf: Cool.

Greg Everett: Yes.

Robb Wolf: Thanks, I'll try to have even more coffee and more stimulants on the next go around or maybe my opium poppies will be in by then and I'll flutter from that.

Greg Everett: Excellent. I like it.

Robb Wolf: Cool. All right, thanks G.

Greg Everett: See you.

Robb Wolf: Okay bye.

[01:00:44] End of Audio