Paleo Solution - 155

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Robb Wolf: Hey, folks, Robb Wolf here, just heard a huge boom in the background at the Catalyst Athletics Training Centre. Greg Everett, what's going on back there man?

Greg Everett: There's a little bit of a weightlifting outside.

Robb Wolf: That's crazy, people actually working out man.

Greg Everett: I know, it's weird.

Robb Wolf: Well, this is…

Greg Everett: I have a – because I have a couple of windows in my office, I can look out there but I keep the blinds close, otherwise, I feel like I'm in a fish bowl.

Robb Wolf: People are like scratching at the window trying to get your attention.

Greg Everett: Yeah. Hey, I have questions. Can you help me?

Robb Wolf: Well, this is episode 155. We are one episode away from our three-year anniversary. I'm not sure what we'll do for that. Well, just generally…

Greg Everett: A podcast.

Robb Wolf: Well, we'll try not to suck. So I won't talk about it. Bob Takano book is out?, almost out? When – what's the…

Greg Everett: It is in pre-order stage.

Robb Wolf: Pre-order status, okay.

Greg Everett: So you can – you can order it now on Amazon and it will ship as soon as it's release which should be the first of December.

Robb Wolf: Why don't you throw a link to that in the show networks?

Greg Everett: I'll do it…

[Crosstalk]

…called "Weightlifting Programming, a Winning Coaches Guide."

Robb Wolf: Nice.

Greg Everett: How is that for inspirational?

Robb Wolf: That is awesome.

Greg Everett: Yeah.

Robb Wolf: And it's speaking of inspiration of all foods, go grab some chow, jerky, nuts, weigh protein, God, we've got it all at allfoods.com put in Wolf pack 12, save money, what more could you ask for?

Greg Everett: Cool.

Robb Wolf: You did – can you believe that we actually have other people requesting to advertise on the show?

Greg Everett: Of course, I mean, how charming and weedy are we?

Robb Wolf: It's just – it's about a slap dick away to handle advertising because you could get…

Greg Everett: I mean, I was going to say, how could they not want to advertise when we're so good at promoting it at the beginning of the show?

Robb Wolf: I think that these are all businesses that are catering on the edge of chapter 13. And they're like if we advertise on there, we will go bankrupt and then we can get out from under this albatross, we're good.

Greg Everett: Oh, man, it's possible.

Robb Wolf: It could be a side job for us, just helping to – it's almost like a Jack Kavorkian of businesses…

[Crosstalk]

Greg Everett: …it's almost like the guy that comes and kills the race horses for the insurance money.

Robb Wolf: Yeah. Totally, totally, I'm there.

Greg Everett: This – yeah. Alright, we'll go far down that road, starting to get weird. Well, okay, so "Evolve Food" Bob Takano's book, anything else going on?

Robb Wolf: Not too much. Not too much. The babies poop is starting to look more cheese instead of just gravy like. So that's kind of odd but still only breast milk, so.

Greg Everett: Well, didn't need to know that but thanks.

[Laughter]

We're and all Robb but there's certain things that I just…

Robb Wolf: We just don't need to know.

Greg Everett: …just don't need to know.

Robb Wolf: That's true.

Greg Everett: But I'm sure our listeners appreciate it. They get a kick out of that baby poop, so.

Robb Wolf: They didn't just never really goes out of style, which is why I guess people continued to have babies, so.

Greg Everett: Oh, I thought it was an accident.

Robb Wolf: Well, occasionally.

Greg Everett: Alright, let's do this.

Robb Wolf: Should we – should we talk sweeteners?

Greg Everett: Let's – let's talk sweeteners. This – we'll talk specifically about a sweetener that the name of which I don't know how to pronounce. So we'll see what we can do here. We'll make it work.

Alright, Jeff say, Robb, can you share your thoughts on Nectresse or Nectresse or something like that.

Robb Wolf: I like Nectresse.

Greg Everett: The new sweetener. I believe I would imagine they're trying to make it sound like nectar which is natural and appealing even though it's probably some really bazaar chemical compound. Specifically is it a better choice than Splenda or Truvia? Thanks.

Robb Wolf: Well, you know it's funny; the stuff is really hard to track down. And the one outlet online that I could find that was selling it was Wal-Mart online. So that's kind of funny. And then, you know, digging around it, it's apparently an extractive monk fruit. And the main sweetening agents are actually these saponins that, you know, stimulate the sweet response on our tongue.

And it's – I would say that it's probably pretty benign given that it's been used in kind of traditional Chinese medicine, Southeast Asian traditional medicine for centuries. So it like it has a long history of human use. I think it's probably pretty benign as far as that goes.

The thing about any of the sweeteners though, and this is like Stevia or Splenda or, you know, whatever in all the like potential of neurotoxicity aside. What I find is that any type of concentrated sweetener for certain people, it can spin them out into really bad food behavior.

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And if you check out any of Stephan Guyenet's stuff where he's talking about portability and food reward and stuff like that, I think that we just have a certain cross-section of the population that if you give them a concentrated sweet flavor, they will go fucking bananas and like you will never real them back in.

And so, it really just depends on who you are and how you respond to this stuff. And so, I would probably stick Nectresse in the same categories, any of these other sweeteners, any type of really potent sweets stimulus for a significant number of people is going to be problematically if you're just going to tend to over eat food. It tends to push you into not only eating that meal but eating subsequent, you know, larger meals and whatnot. So that's would be my thoughts.

Greg Everett: Cool. It also probably has a nasty after taste like more of those so called natural sweeteners too.

Robb Wolf: You know the reading on it, it didn't really seem like it does. But, you know, unlike…

Greg Everett: Who told you that, the PR guy for the company?

Robb Wolf: Yes. Yes. Which they will be – soon be an appetizer displacing evolved food from its loaded…

Greg Everett: Forgery evolved food.

Robb Wolf: Yes.

Greg Everett: Alright, Hayden say, Robb and Greg and that's Greg with two Gs at the end by the way.

Robb Wolf: He's going double B, double G bananas.

Greg Everett: That's right. I've been hearing a lot about a NuSI or Nutritional Science…

Robb Wolf: NuSI.

Greg Everett: …or NuSI.

Robb Wolf: Yeah.

Greg Everett: Why would you pronounce it like that?

Robb Wolf: Well, why did we pronounce Nectresse the way that we did?

Greg Everett: I don't know – because it sounds good. The NuSI sounds goofy. Okay. Nutritional Science Initiative or as Robb pronounces it NuSI, it sound – it seems like a good idea to me but I'd like…

Robb Wolf: It sounds so pathetic when you say it that way. It's just kind of lymph we need sounding.

Greg Everett: Well, because we said you pronounce it NuSI, it's SCI as you would pronounce the first part of Science.

Robb Wolf: Uh huh.

Greg Everett: NuSI sounds like a little kid's toy.

Robb Wolf: Okay. That's true.

Greg Everett: You know what I mean?

Robb Wolf: it does.

Greg Everett: You can't – you can't take anybody seriously who works for an organization called NuSI. Okay. It seems like a good idea to me but I'd like to hear your thoughts. So apparently you've already heard too many here. On their website they state the problem our health sucks and their strategy science but don't seem to have any solutions.

Is this project legit or worth donating too? It seems to me that Paleo is a pretty darn good solution. Thanks. You guys rocked.

Robb Wolf: So, yeah…

Greg Everett: God, I love that strategy, Science.

Robb Wolf: Science. Science is the solution friends.

Greg Everett: Oh, boy.

Robb Wolf: So, you know, the folks behind this are Gary Taubes and Peter Attia, two good friends of mine. I think the whole idea is very, very interesting. There's a fascinating story behind this where some billionaire philanthropist, you know, became savvy to Gary Taubes's work and meet Peter Attia and they were – they had this idea of doing kind of out of the academic quarter research, you know, basically finding independent funding and trying to, you know, answer these nutritional science questions by better design studies and whatnot.

And so, they've got a pretty good injection of cash. I think they've got like Tim Ferris, and some other heavy hitters, and kind of the PR side of this thing. I think it's really, really interesting. I think that there's some big opportunities here. My hope is that the focus of the research starts with this evolutionary biology as a beginning question. Like there's been some push on Gary's part to make one of the first studies. Like whether or not you can – you can gain weight on ketogenic diet. And try to answer this question about like is insulin absolutely necessary for weight gain. And just on my gut level intuitive kind of sense, I think that that things kind of been answered.

So, you know, some of the criticism on NuSI has been that it's going to run into the same problems that other nutrition intervention have faced,

which is that if you do something really kind of gold standard, like a metabolic word where you have people live essentially in the hospital, weigh and measure every bit of food that they eat. Weigh and measure every bit of piss and shit that they excrete. And, you know, like start using that to correlate fat loss, and weight gain, and metabolic changes and all that. One thing is that this – those types of interventions are wickedly expensive and it's really hard to get people to essentially live in jail for, you know, a long period of time…

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…which the criticisms frequently of various interventions like the way that Staffan Lindeberg did his Paleo diet in humans. They educated people about how to eat a Paleo diet, educated folks about how to eat a Mediterranean diet. The population they were using was type II diabetic carb patients. But then these people went out and lived on their own, did food journals and then, you know, reported, you know, what the results were. And in that context, the Paleo diet intervention was much more effective in improving oral glucose tolerance and whatnot. But at the end of the day, you really don't know for sure what these folks say. But it's a relatively inexpensive way to go about tackling this thing.

The, you know, so my concerns with this – the whole thing is that unless we really as a base level start asking questions from an evolutionary biology perspective and use that to frame our hypothesis generation, I think that it could potentially be more of the same were we're just doing a random study, a random study and we don't have like an overarching theory or bigger picture hypothesis like quantum mechanics or like, you know, plate tectonics or something like that.

Like we need something overarching…

Greg Everett: Playing tectonics?

Robb Wolf: You know – I mean, it…

Greg Everett: Such an odd choice.

Robb Wolf: Well, it's the, you know, for a long time they – we didn't have a good theory about the way that, you know, the earth crust moved. We weren't even super aware that, you know, it did move but it, you know, was it only along fault lines. And then we had this idea of subduction zones and everything. And, you know, it became…

Greg Everett: Plus the middle earth.

Robb Wolf: Middle earth, you know, tools or it's in all of the rest to that. But with a robust overarching theory, we can start getting somewhere. Like we can turn nutritional science and actually, you know, get it headed in the same direction the rest of biology is moving which is actually using Darwinian evolution as a framework for asking questions, you know. Like we frequently forget that cholesterol is a critical cofactor in our immune system.

And so, instead of, you know, like all of medicine looks at cardiovascular disease and different cholesterol issues, as if cholesterol were this horrible, evil kind of entity. And we completely fucking forget that it's a critical additive our immune response. And I think that these are pieces that are missing from just like the basic science education for our physicians and health care providers.

And so, in order to plug that gap, I think that this, you know, NuSI project in my opinion needs to have this evolutionary biology framework as the background. But then I think it's going to be challenging to overcome many of the same challenges that has faced conventional nutritional research, even though, they've, you know, they are operating with this evolutionary biology framework. But you would still battle up against the problem of how do you keep 3,000 people in a metabolic word setting for 5 years or 10 years to really get what a lot of people would consider to be gold standard answers to this questions. And that…

Greg Everett: That's easy, you just use prison…

Robb Wolf: That is a thought but silly ACLU and other folks have some issues with that. So those are some concerns that I have. And for me this is part of the failure in my opinion of evidence based medicine. There are certain questions which are – in order to answer them to this very, hoity-toity gold standard kind of – kind of perspective or, you know, it's going to be almost impossible. Or – well, it's just pretty much impossible in a lot of works.

So, I, you know, that's where I'm much more excited about this kind of market base approach where we just send information out to people. And it's like I would love to see some health care providers sitting back and looking at, okay, what are the long-term trends in people that are reading Paleo? What are the long-term trends in people who eating

Vegan, you know. And if you've got some sort of a trend where people eating a certain way, they end up living longer and costing less, then we should reward that with lower health insurance premiums and lower life insurance premiums. And we tackle this thing on a largely market base approach. Because, I don't know that the way the academia works and the cost of doing all these stuff, I don't know that it really lend itself well to this, you know, giant metabolic word gold standard analysis.

[0:15:03]

Maybe it will, maybe they'll pull it off. But I think that there are going to be some challenges in getting over that stuff.

Greg Everett: Alright.

Robb Wolf: Greg, your thoughts, feelings, perspective?

Greg Everett: No, I don't have thoughts or feelings.

Robb Wolf: That's safer that way.

Greg Everett: Let's go drink until we can't feel feelings any more.

Robb Wolf: Yeah.

Greg Everett: Okay. Dylan says, hi, Greg and Robb; I'm interested in finding out your take on CNS recovery. I'm a 34-year-old man, have CrossFited for a few years until I was beat up. Now, I do a football ish program three times a week. I'm also a full time student, home schooling dad and bike-bus commuter.

I've been eating Paleo plus cream at home for about four years but I forget when I'm anywhere outside of my house. My question is based around the fact that I have cerebral palsy that affects the right side of my body. What can I do to speed up my central nervous system recovery after training?

I feel like my central nervous is always being tap to my CP which makes me excessively worn out. I sleep by eight hours a night, many times don't feel rested when I wake up. I take good fish oil and ZNA each day. I'm interested in hearing your guy's thoughts and ideas on this subject.

Robb Wolf: Wow, you know, a couple of – I guess – spit out – spit it out Robb, use your words, you know, one thought that I would have with this, it sounds like you're pretty active. So I wouldn't necessarily recommend like a low carb approach. But there could be the opportunity for doing like a cyclical low carb, doing something like a carb back loading or going to get cheaper on the podcast here soon. Well, have Nate Miyaki on the podcast soon. And we'll get in real deep on that stuff. So definitely tune in when we have those guys on the show.

The central nervous system even though, you know, glucose is kind of the primary fuel source in situations in which we have oxidative stress, neurodegenerative diseases, it seems pretty clear that ketones are the preferred fuel source because the table two bypass the need for glucose, mitigate the oxidative stress associated with glucose. And also it tends to stabilize some of the calcium homeostasis and the neurons so that we don't get some of the protein damage, oxidative stress associated with the, you know, kind of excessive release of calcium into the cellular inter – not inter-station but the cellular fluids.

So I could make an argument for like a cyclical low carb approach or simply making sure that you keep a little bit of medium change like listeroids in most of your meals which, you know, a scope of coconut oil would be good to go on that.

So from a fueling stand point, I could see that being potentially beneficial. And then on the other side, I've been doing some reading on amino acid use like using a tyrosine as a dopamine precursor, using a little bit of 5HTP as a serotonin precursor. Kevin Kahn is actually, probably by the time this goes up, there will be a blog post either just went up or will be going up immediately after this podcast. They're talking about the use of amino acids for different neurological conditions. And largely focusing on tyrosine and 5HTP, I would track down a functional medicine doc who knows what they're doing with that protocol. I think Kevin has a little bit of a protocol outlined in the piece that he did. But, you know, I would get a little bit more help in dialing that in.

That could be very beneficial in helping with the kind of neurologic recovery, taken, you know, being very aware of unloading, not digging too deep of a hole on the training three days a week if the volume and intensity is still too much, you know, that can still get you behind the apple, especially being a home schooling dad and bike-bus commuter and all the rest of that stuff.

So ketones, you know, using kind of functional food like MCTs from coconut, possibly some cyclical low carb but then also looking at tyrosine and 5HTP as some neurotransmitter support. But I would definitely track down some help to get that dialed in. There are – I've read some stuff on some urine based analysis that will show when you are getting therapeutic levels of both dopamine and serotonin conversion from the 5HTP and the tyrosine.

So, you know, there are some methodologies out there for kind of fine tuning what your optimum dose is. So I'd be doing a little poking around on that.

Greg Everett: But what about, you know, stimulants like caffeine and stuff, how's that going to play into this?

[0:20:08]

Robb Wolf: You know – you know, so caffeine, you know, it stimulates dopamine release but depending on how you are wired up like more and more in finding that it's seems better to provide precursors to boost the substrates kind of naturally versus something that is stimulating excessive release. And…

Greg Everett: Well, no, I actually meant that in other way. I mean, would caffeine be negatively affecting – I mean…

[Crosstalk]

…over taxing him.

Robb Wolf: Yes. I think it could. I think it could. I know from myself, I – when you look at some of the dopamine deficient kind of characteristics like tendency towards depression, thrill seeking, loving loud music and head butting bars, when you're back squatting and stuff like that. Like, you know, when I read some of the stuff on dopamine deficiencies like yeah, that's me.

And it's funny when you look at my family, both parents were smokers, both parents drink and this goes back on both sides of the family like it is far back as you can get. And so, I think that, you know, my mom smokes while I was – I was in uterus.

So, you know, there's some…

Greg Everett: And look how great you turned out, see that's a myth.

Robb Wolf: Yeah. And imagine if had – had she not smoked…

[Laughter]

Greg Everett: You're really like 320 or 3 percent body fat…

Robb Wolf: Totally.

Greg Everett: …and some kind of genius.

Robb Wolf: Instead of just a slop, a sarcopenic slap.

Greg Everett: There's some guy hangs out with me.

[Laughter]

Robb Wolf: So, you know, I think at looking at some of those epigenetic like family of origin, you know, epigenetic things, you know, what were your parents like? What were your grandparents like? Did you have anything that, you know, I think also looking back my mom probably had some metabolic derangement because, you know, when her early 40's she ended up getting diagnosed to some thyroid issues. And this was the beginning of some autoimmune issues. And the beginning of type II diabetic.

So all of these things kind of set you up like they, you know, they start flipping genetic switches even, you know, during your fetal development. So, you know, the stuff can start from really early on. And I think that the seeking of caffeine, nicotine, alcohol, thrill seeking like all of those things kind of plug some of the holes in that kind of dopamine deficiency.

And I think that there are some people that run around that are kind of dopamine dominant and they just – they pump out dopamine all the time, and they are happy, and functional, and adoptive and, you know, there's some good stuff there.

But I do think that there's some, you know, promise using amino acids and kind of a synergistic format. The thing about using amino acids, the stuff that I'm learning is you don't want to go all of one, none of another.

So, you know, a tendency that folks have is to use all tyrosine because it enhances dopamine. And so, that will maybe be good for like pre-workout kind of booster or something like that. But then you can end up serotonin deficient because you are squeezing the balance too heavy towards dopamine. And this is some of the problems with – in a depressants because they typically only hit one facet of the neurotransmitters where these things work and synergy and in balance.

So I think that there are some things that you could probably do that would help with all these, you know, basically making, you know, protecting slid, making sure you're not over training, taking time off, possibly dialing down the stems a little bit, looking at the possibility of some sort of ketogenic protocol, whether it's simply adding coconut oil to the mix, whether it's cyclic ketogenic plus coconut oil. Or, you know, there's a zillion different ways to do that.

And then finally looking at amino acids supplementation and I would really again, try to track down a functional medicine doctor. See if there's somebody in the physicians network that is savvy to the stuff and get some support because I know that there are urine based testing protocols that will tell you when you are in kind of the right balance with amino, you know, the amino acid load that you're taking in.

Greg Everett: Cool. Alright, heavy metals…

[Crosstalk]

…it sounds good. Helen says, hi Robb, I'm one of your six original listeners and I'm still beautifully worshiping at the altar of Paleo each and every week. My question regards heavy metals. How significant are they to our health? What do you think of the field of orthomolecular medicine, Abram Hoffer et al?

Finally, what about the various protocols, nutritional balancing, coffee animas et cetera to eliminate heavy metals, that sounds really uncomfortable?

I would appreciate some clarity on this subject, Helen. The Canadians are slowly coming around.

[0:25:12]

Robb Wolf: I hope that the coffee animas at room temperature like I definitely want that coming out of the…

[Crosstalk]

Greg Everett: …1980's McDonalds temperature.

Robb Wolf: Seriously. Seriously, you know, heavy metal toxicity is a real problem for a lot of folks. I think one of the big factors in this is actually a deficiency of selenium like when we're talking about mercury in particular; selenium has an amazing capacity to mitigate the effects of mercury and actually to help remove it from our tissue. We have detox pathways that work pretty well if we're providing adequate protein, if we have some fiber in our diet, if we, you know, we have adequate selenium and some of the cofactors that go into glutathione production. I think that where folks have problems either they're not getting enough of this other cofactors or they're so overloaded with, you know, say, like a heavy metal exposure that it's hard to get ahead of that.

I think some of the orthomolecular medicines stuff is interesting like they will use sodium ADTA as a key leading agent. I think that there's some efficacy that the, you know, the science kind of goes back and forth. That again, in the functional medicine scene that's where you can find folks that will actually use this protocols.

Before you get, you know, before folks go wild on this stuff, you can do hair analysis and some other tissue analysis to figure out if you actually have some heavy metal issues. But from there you want to look at, you know, what's probably the environmental exposure, where you're getting that from, are you getting enough of the other cofactors like selenium to help you, you know, run your detoxification pathways properly. And then if you need some support, then, you know, you want to actually know that you've got a problem and that you're not just fishing around in the – in the dark on this stuff.

The coffee animas I – I don't know. I – yeah, I would go other routes probably versus the coffee anima personally.

Greg Everett: Yeah. The only route that coffee is getting into me is the mouth.

Robb Wolf: Seriously. Or, you know, pick lines straight into the jugular but…

Greg Everett: This is true.

Robb Wolf: Yeah.

Greg Everett: Okay. Danny says, hi, Robb and Gregg. I'm curious about what to do when Paleo/Paleo autoimmune does not work clearer for condition. I have all sort of colitis. I switch to a Paleo diet one and a half years ago. I've been 100 percent green and legume free since that time. I did a very strict period about three months of being dairy free, nut free, egg free, night shade free, caffeine free, alcohol free, chocolate free and since my body does not tolerate starch, tyrosine, potato et cetera very well, starch free. I ate bone crust, cook peeled, seated vegetables and very little fruit, they will be bananas or something that my body does pretty well with when I am very sick and cannot tolerate much else.

I took fish oil and digestive enzymes religiously during this period. At the end of this period my colitis is worst than it ever was, prompt to me to have another colonoscopy and forcing me to go on one medication. At the end of the three months I felt kind of defeated when on the meds, stayed a 100 percent green and legume free but light up on the other things, eating eggs, night shades and occasionally grass feed, butter and age cheese.

I'm not been able to get off the meds but my condition is certainly not any better or worse than when I was very strict in my diet. Being that strict quite honestly felt a little obsessive and often depressing. Regular Paleo is not problem for me but all those other limitations began to make me feel very alienated in social situations. It was also a very time consuming not to mention a little boring.

I live in a very rural area in Hawaii so I don't have access to the doctors and the Paleo of network more there are any functional medicine doctors in my area.

Oh, my God, this one is long. Since the beginning Paleo eating, I feel like a crusader in my own personal health revolution. And I'm thankful for all the folks with the gaps SCD and Paleo life style information. I'm just not quite sure where to look next. I could go back on the auto – back on the autoimmune craziness and see if I have a different result this time. But I'm wondering if there are any other avenues to look down. As a side note, I begin doing some fertility monitoring a few months ago and noticed that my morning basal body temperature is sometimes quite low, 95 1/2 to 96 1/2 range. It seems that when this is the case I also noticed

that I have more problem sleeping and my colitis seems to be slight worse.

The only think I've noticed to be related to a low body temperature on Dr. Google is thyroid issues. I think my doctor would think I was crazy for suggesting this. I'm a normal weight, 5' 3" and 115 with this muscle mass. I do have slightly more fat on my abdomen than on other areas on my body. My legs and bum are fairly lean. This has caused me to question metabolic issues and systemic inflammation issues.

Clearly I have inflammation issues but that being the case why didn't autoimmune deal help at all?

[0:30:02]

I'd be willing to invest, send some blood work if you could shed some light on the situation. Any thoughts would be appreciated. Thanks for all that you folks do. You make my long walks even more enjoyable.

Robb Wolf: Wow. That's a big.

Greg Everett: I need a water break.

Robb Wolf: And a smoke. So I think that looking down the thyroid story, thyroid and cortisol would be supper – it's inexpensive and if it's not a problem, then no big deal. But if it is a problem it could be a huge factor and all those stuff.

And so, looking like in adrenal stress index test, checking DHEA and cortisol, getting total cortisol and also seeing what the core cortisol points are throughout the day. Like are you low in the AM, high in the PM all that sort of stuff.

If you're low in cortisol, interestingly that can affect the conversion of T4 to T3. So you can go through this phase where you're elevating cortisol. And then as you start heading into later stage, adrenal burnout, then the cortisol drops. The low cortisol can lead into systemic inflammation because you're not mitigating the immune response. And then it also can affect thyroid. And then it becomes this kind of downward spirant.

So I would definitely check that out. I would get a full thyroid panel, a TSAH, T4, T3, reversed T3 all of the – like between the ASI and the thyroid

panel, that should be maybe 200 bucks or something like that. So it shouldn't be supper expensive.

The other thing that you can look into and this makes coffee animas seem pretty benign. But there is some really good research suggesting that fecal transplants maybe hugely beneficial all sort of colitis. And there is a clinic in Portland, Oregon that does this stuff. It's still is not FDA approved which I honestly think is a crime because the data on this is very suggestive that a fecal transplant what they do is they basically straight bomb your current gut bacteria, find a clean donor and then they undergo a process of implantation and I know for sure that there's a facility in Portland, I think the stuff was actually pioneered in Australia. So if you want to go to Australia, that's also an option.

But those are kind of the two things that I would look into, definitely thyroid, cortisol. And then I would also look into some of the information surrounding the fecal transplant.

Greg Everett: Alright.

Robb Wolf: And if you follow this stuff up, I would be really interested to know how it goes either way.

Greg Everett: Well, I mean, the good news about fecal transplant is got to be easier to find donors than for other organs.

Robb Wolf: And you beat with a supply apparently, yes, yes.

Greg Everett: Okay, speaking of that, next question. Is spicy food a "Crappy choice for healthy gut?" [Laughter] Ashley say, hey, guys, this question is about health benefits of spicy food. They ambiguous health experts and scientists say that spicy food can assist in lowering blood pressure and risk of heart disease. Oh, no, actually it says hard disease. And reduce inflammation among other claims.

I had become an increasingly enthusiastic fan of spicy food over the past few years. And I find that a lot of spicy meals I enjoy are also very healthy, gluten and sugar free comprised, mostly of meat and vegetables. However, the morning after a spicy meal often results in a less than fun trip to the bathroom.

So my question is if I'm having these unpleasant vowel movements after spicy food, they must be bad for my gut health digestion, right? Do really

spicy foods affect gut health in a way that I should be worry about? Can I keep building up my tolerance or should I lower the spice level until I stop having this type of side affect? Love to hear your thoughts because spice is certainly does out of level of fun to some otherwise blend Paleo meals. Thanks.

Robb Wolf: You know like capsaicin is probably the main – the spice that we're talking about, chili peppers, paprika it's the fun part of pepper spray. It's a mucosal membrane.

Greg Everett: It's the part that lets you know its working.

Robb Wolf: Yeah. Yeah. Absolutely, kind of like a belly club is. It will let you know its working. So it's a mucosal membrane irritant. And this is why when you eat hot food, they, you know, your nose start running, you've tend to get that all exits opening kind of bowel response because you increase mucus production, you increase peristalsis because the body is trying to move the stuff through.

[0:35:00]

This is also part of the reason why when people are on say kind of a standard diet and they have some gluten issues, when they off of gluten, they may have some constipation for a while because the gluten is actually causing irritation to the gut, increase mucus, increase peristalsis because it's moving this thing out, trying to mitigate the effects of this toxicant, this irritant.

So, you know, it's one of these things capsaicin also is an antioxidant, it does have some interesting vascular effects. In hot climates consistent consumption of capsicum actually decreases the hypothalamic regulation of body temperature. So your body temperature tends to go down to a slightly lower level which if you live at the equator and it's, you know, blistering hot all the time is probably not a bad thing.

But I think there's and back and forth. There's trade off on all this. There's also some, you know, good science that suggest that some of the spicy foods are beneficial for combating gut parasites.

So you have some, you know, some potential benefit there. But it is also an irritant. So, you know, I don't know that there's a definitive 100 percent right or wrong story on this. It's interesting for me I used to be able to eat like the most thermonuclear hot food you could imagine and

have no GI problems from it at all. And then I ended up getting giardia, I think that that was like the big precipitating, you know, problem of a lot of my gut issues. And since then if I do anything more spicy than like my oldest – Thai food, it's, you know, three, four hours later it is sitting in a column of flame.

And this last weekend we're at the Nor Cal challenge and we had some gluten free pizza that had some jalapenos on it, oh Lord, did I pay for that.

So I, you know, I can't give you a really – I guess a yes or no answer on this. I could see arguments for spicy food being beneficial. I could also, you know, it definitely is however, a gut irritant. So I don't know. You just have to play with that and see what's your, you know, if the taste of the spiciness is worth sitting on column of flame. So, I don't know.

Greg Everett: Oh, boy. Alright, let's – this is the first real cattle bowl question we've had in a long time I think.

Robb Wolf: Uh huh.

Greg Everett: But it's the classic one. American versus Russian kettlebell swings. Matt says, Robb and Greg, what is the best kettlebell swing, Russian or American? Specifically which is better orthopedically for fit but 40 plus trainees? Crossfit says American, but RKC teaches Russian as far as I know. But many look to them as the experts of all things Kettlebell. And while you're at it, what do you think of this? And there's a link to an article called "10,000 swings, to fat loss."

Well, Robb, you have some kettlebell experience. I've done a little time I got my RKC several years ago. So let's see what we come up with here.

Robb Wolf: What's your thoughts on this?

Greg Everett: Well, my very simplistic thoughts or that I do think the more traditional are Russian swing to about chin height should be the first thing that people learn. It should be kind of the fundamental kettlebell exercise. That should be kind of like the go to. And I think that until you know how to do that properly and do it well, you shouldn't bother learning an overhead swing.

I think really the heart of the kettlebell swing is the swing, which is really that lower arch. And once you get above that, you're starting to pull in

obviously the upper body specifically to move it back, which is not necessarily a bad thing; it's a good thing if you're looking for an exercise that's using more of the body that you want to engage the upper body.

But again, if you don't have the regular traditional swing down and you're not swinging it properly once you start getting people to go overhead, it's like having them do barbell Olympic lifts when they don't yet know how to do them. They just muscle their way through it which defeats a lot of the purpose.

And so, with CrossFit, of course a lot of people get hang up on the idea of well, moving large loads, long distances and they kind of forget everything else besides that.

So, yeah, you move the bell further. And so, that must be better. But we can do it better and get more out of it than just finding anyway to move the bell from down to up.

So that would be the gist of my thoughts on that one.

[0:40:00]

Robb Wolf: Hey, dude, I can't add a ton to that, you know, the swing is posture your chain developer. And it teaches some really cool stuff of learning how to be both tight in appropriate spots and lose at appropriate spots, absorbing an outside load; it's a great hamstring, lower back developer when performed properly. And, you know, like Greg said that that lower arch of the swing is really where the money is on that.

And, you know, this is where you've got a developmental tool; I guess is the way that you would look at it. And then when do you change or possibly even bastardize a developmental tool for the sake of performing work. And that's always been the argument with the, you know, the American swing is it you're going overhead so you have a greater displacement. And so, you're doing more work and that is absolutely true. But it's always great to ask who are you? What are you doing? What's the goal?

And for a lot of folks that additional, you know, bit over the head really isn't doing anything as far – like if we're concerned about a sprinter or a power lifting and Olympic lifter, most athletes, you know, for just looking at post to your routine development in getting the, you know, the developmental elements out of that movement, that's all that we need.

And it's easier to teach, it tends not to be potentially hazardous, we don't get funky movements. I have definitely seen a lot of people who instead of the spine being a rigid transmitter of force, the spine starts becoming a flexible force generator in that overhead spot.

And so, you end up with kind of bibasic movement of some hip drive along with some thoracic spinal flexion extension to with that bell over head and not everybody does that but some people do. And I think that when we see that that's a problem like that's – the spine is not a force generator, the spine is supposed to be a force transmitter.

So, again, it's, you know, looking at the stuff as a progression, laying down basics and then working from there. So if you're going to be a CrossFit games competitor or want to – want to get in on some local throw down and stuff like that, that's fantastic. But just spend a lot of time developing the basic elements first and then go from there.

And I – it's this kind of funk teenager mentality, this new kid on the street that you come in and look at something like the kettlebell sport in Russian the eastern block has been around like a 100 years. And, you know, surely at some point in that time, somebody had to have the idea of well, shoot, we could swing these things all the way over head and it maybe begs the question, why didn't they do that, you know. And for the basic athletic development that they were seeking and for within the confines of kettlebell sport it was unnecessary and maybe even counter-productive. And again, that's not to say that using this overhead swing for both work capacity and having a somewhat easily quantifiable judging standard, that's all fine. But just lay a foundation and then go from there.

Greg Everett: Yeah.

Robb Wolf: Yeah. And the 10,000 swings for fat loss – I mean, it's doing a lot of work throughout the day. It seems legit to me. I can't really see any problems with that.

Greg Everett: Yeah. I just skim to that thing really, really quickly, you know. It's – I mean, it's interesting idea and there wasn't anything necessarily, inherently wrong with it. But I think that it does have a little – had a disclaimer at the end that says, if you aren't good at swinging kettlebells, don't do this because you will kill yourself.

So I'm glad to see that because that's true. But if you are someone who swings kettlebells a lot, then you're probably good to go.

Okay. Muscle stem cells, deflation, aging, and over exercising. Eric says, Robb and Greg, my knowledge of biology pretty much tops out with what I have learned from Gary Taubes, Uffe Ravnskov, Chris Kresser, and Robb. Have pity on me. Don't feel bad Eric, mine tops at what Robb has taught me…

Robb Wolf: Which is really scraping the bottom of the barrel, so.

Greg Everett: Robb and then a little bit of Bob Takano and then maybe high school for like a minute when I paid attention. But I came across to this science discovery about a prettiness seems to have a role on the aging of muscles. The researchers claim to have found excess accumulation of FGF2 which they say plays a role in recruiting muscle stem cells to become real muscle cells. I'll be a real boy.

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What intrigue was reading that we have a finite amount of muscle stem cells and this is new to me – news to me. I didn't know the bodies are building to make a muscles could run out. This is where my question comes. If we have finite muscle stem cells that are used to create new muscles cells, is there some level of over exercising that depletes the finite stem cells faster than normal use? Does high intensity exercising offer good health while young at the expense – while young at the expense of weakness when older? Am I just missing something else about the fact that muscle stem cells are finite? As this molecular biology basics and I the geographer, I'm just embarrassing myself asking. See this link for what inspired my curiosity.

Robb Wolf: So, it – for a long time we've known that the body has finite reserve of stem cells. And one of the interesting characteristics we'd say like the centenarians is that they tend to motor along pretty well until that stem cell reserve is completely depleted. And then the wheels tend to follow off the wagon pretty quickly and people die.

And some of the trade off when we're looking at aging, if you – if you don't have tissue turnover at all, then you have the potential for cancer. So like apoptosis is a process where if a cell becomes abnormal, then hopefully there's some sort of a sensing mechanism in the cell that recognizes that it's heading into cancerous state and the cell has programmed death. And, you know, then it's not really a problem. But it's

a problem from the perspective that we just we loss some of our tissue and that stuff potentially needs to be replaced.

And some of the things that influence stem cell turnover is, you know, like insulin status, hyperinsulinemia, high insulin levels tend to be a growth promoter and they tend to – that state tends to burn through stem cells quicker, which, you know, you could argue as probably one of the factors that is going to – go into shortening one's life.

One of the interesting things about exercise is that typically we work hard to the training that we are doing. And so, if you Olympic lift, you get good at and work hard into Olympic lifting, if you do gets the same deal. And so, initially there's a pretty significant stress the body starts adopting. And then the stress of that activity becomes less. We tend not to have the same degree of cortisol release. I would argue that we have less tissue turnover and whatnot.

And so, you know, I think from an aging stand point the, you know, kind of an optimum exercise frequency or, you know, a pool of movements that you do, I think that there's an argument for having some continuity so that you are getting a consistent exposure with enough variety to both keep it interesting and get a little bit new adaptation to stimulate both hormonal and cellular signaling in a way that, you know, keeps things kind of adoptive.

But when you are just blasting things, blowing them out of the water day in day out, I think that that's the potential for burning through the stem cells rather quickly. And this is one of the problems I see with a completely randomized approach to training over the long-term is that you are never really adapted to the stuff that you are doing.

And so, it's sending a heck of a stimulus to the body but what if some of that stimulus is basically cooking through your stem cells because you are constantly sore, constantly fatigue, always have a base level of inflammation that is burning through stem cells in your immune system, in your muscles, you know, God knows where else.

So I – does that make sense Greg? Did I – did I kind of cover that?

Greg Everett: Yeah. It makes perfect sense.

Robb Wolf: Cool. So, yeah, I…

Greg Everett: I totally know what you're saying.

Robb Wolf: Sweet. I'm sure nobody else does but that's okay.

Greg Everett: That's okay. No problem. Alright, I'm kind of excited to see what we have to say about this next one.

Robb Wolf: Yeah.

Greg Everett: Jeremy says, just came across Linda Bacon's Health at Every Size website. At first glance I resonate with her trying to shift people from a one dimensional focus on trying to get rid fat, trying to attain health. However, as I read her manifesto there were some things that run counter to belief that seem core to the ancestral health crowd.

Some of her claims from her manifesto. One, overweight people live longer than normal weight folks. Two, there are some people that simply cannot lose weight and we need to redefine our notion of beauty. And most surprisingly three, we are healthier than ever and chronic diseases appearing much later in life. We are simply not seeing the catastrophic consequences predicted to result from "Obesity epidemic."

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So as a fitness coach who works with over fat people, this brings up a lot of important questions for me, such as is being over fat correlative to health issues not causative. If so, how does this change our approach? What level of over fatness changes the game so to speak? This perspective seems much easier to accept for a person who is 30 pounds overweight and not feeling so great about themselves as supposed to 130 pounds overweight and having a hard time being functional.

If all people can lose fat, do we need to create more reasonable expectations? I think he means if not all people can lose fat. I'm really sure. I find that the prospect of a six pack or skinny underarms really hunts people who have already seen huge changes in body composition.

Fitness coaches, who have themselves been over fat maybe the most afflicted speaking from personal experience, love to hear what you folks think about this.

Robb Wolf: I mean, this is definitely one of the interesting things popping out of the research is that there are some people who are what we are considered

to be overweight, over fat that do not have insulin resistance, do not seem to develop or develop degenerative diseases, they seem to live a long time. But they're, you know, certainly we have the other side of this where we have people who have significant insulin resistance, all kinds of systemic inflammation and what's intriguing is we don't really know why. Like maybe its gut flora, maybe its genetics, maybe some people have a good vitamin D and other people don't.

I, you know, it would be interesting to talk to – what's the woman's name? Linda Bacon, which is a great name, it would be interesting to…

Greg Everett: Oh, my God, I didn't even notice that. I'm embarrassed.

Robb Wolf: Is it – what is it, numb native determinism, you know, like Joe Sailor or whatever he's in the navy?

Greg Everett: Oh, boy.

Robb Wolf: But, you know, we have these things from like the congressional budget office looking at Medicare and Medicaid cost, just as an isolation. Not even considering personal health care cost. And these things are going through the roof. And it largely seems to be driven by diabesity like diabetes, obesity or related issues, cardiovascular issues.

So I would be interested to hear her comments on that, what her thoughts are in and it does seemed like we're spending a whole lot of money dealing with this issue. And maybe her thought is that a lot of what we're doing is unnecessary because of – even if the person is overweight, maybe they don't have health problems. But, you know, we see elevated blood pressure, you know, bad blood lipids, poor glucose disposal.

So I would be interested in digging in a little deeper on that and kind of see where her perspective is on this. But certainly this is another one of the, you know, the ironies of life that there's just not a consistent story throughout this, you know, not everybody who's overweight is going to be healthy. Not everybody who is lean is necessarily going to be healthier or, you know, the overweight unhealthy.

So it's pretty interesting. I think it begs for a little bit more I guess customization to be able to look at each person individually and not just throw folks into certain categories based on just appearance or just a few biometrics or biomarkers that we need a little bit more comprehensive

approach. And it needs to be also more individualized. I can't really argue with that.

What are your thoughts?

Greg Everett: Well, I mean, I don't really know enough to comment intelligently on the health issue. But I think that – this thing that stands out to me is that she's really conflating to very different issues. And one is the issue of health of course and the other is the issue of beauty of the perception of beauty. And those two things – I've absolutely nothing to do with each other. And I think that's kind of dangerous game to play whereby you're kind of making – I think it makes it harder on everybody.

So if you have someone who's overweight, more than likely they don't feel good about themselves in terms of appearance and that's unfortunate, you know. I hate to think of anybody who feels shitty about themselves. That's not cool. And all obviously a lot of it has to do with the kind of the traditional notions of beauty that are, you know, kind of instilled in us by media, although, it's interesting to think that the media is made up of people who obviously have this perspective otherwise they wouldn't be promoting it.

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But in any case, I think that needs to be completely separated from the ideas of health because if you try to make those two things the same, then all of a sudden it's some kind of like taboo to speak about being overweight or to suggest people lose weight because now, you're just like beating up on them personally and morally when it may very well be that it is simply a health issue and that – there is nothing more to it.

So I think there needs to be no morality attach to being overweight or underweight or any of that stuff. And it needs to be 100 percent strictly a health issue. And like I said, whether or not we can say that overweight people live longer than normal weight folks, I don't know. I have a feeling that's not true. But as I said, I can't back that up really other than with just kind of – the sense that that seems like an unreasonable statement. But that's one thing that comes to mind. I don't know – I don't know that I have much else to say on that.

Robb Wolf: Cool.

Greg Everett: Does that make sense?

Robb Wolf: It's good by me, yeah, yeah.

Greg Everett: Okay. That's it. That's the last one.

Robb Wolf: Sweet. Anything else that we should share with folks?

Greg Everett: I don't know. [Laughter]

Robb Wolf: That works too. Okay.

Greg Everett: I got – I got a seminar this weekend, advance weight lifting seminar which is sold out and we have a long waiting list. So if we decided do another one that may already be sold out. So you guys, when we tell you we're opening a seminar and you're really want to go and you ask us if it's going to sell out and we say, yes and you don't believe us this is what happens, so.

Robb Wolf: Can't you just fit in 10 more people?

Greg Everett: No, although, they asked us do the whole time. I was – I really wanted to get in. Okay. Well, we can maybe let you in, okay. Okay. Well, it's also five of my friends. Yeah. Okay. Good deal…

[Crosstalk]

…I would love to be able to accommodate all of you guys but if we let 40 people in, it wouldn't be an advance seminar. It would just be a regular seminar when we talk that to you the whole because we couldn't do anything, so.

Robb Wolf: So there you have it.

Greg Everett: It's for your own good. Any upcoming events for you, Mr. Robb?

Robb Wolf: I'm doing another talk for Reno police, Reno fire, umm, that's about it, just chipping away at the book. I've got 38,000 words written and I feel like I'm probably about a fifth of the way it done.

Greg Everett: Oh, boy.

Robb Wolf: So this book is really big, so, yeah.

Greg Everett: I can't wait to do that Kindle layout.

Robb Wolf: Seriously man.

Greg Everett: Alright. Well, until next time then.

Robb Wolf: Alright, chief, thanks man.

Greg Everett: You beat.

Robb Wolf: Okay. Bye.

Greg Everett: See you.

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