

## Paleo Solution – Episode 132

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- Robb: Hey, folks, the sleep-deprived Robb Wolf here, the ever large and in-charge Greg Everett. This is episode 132 with the Paleo Solution Podcast, "Dude, What's Going On?"
- Greg: I think your news is a little more interesting than mine.
- Robb: Oh, man, eight days ago we had our Wolf cub, Zoe Candice Wolf arrived, home birth, it's super cool.
- Greg: So was this the standard stork delivery?
- Robb: It was. It did a lay low, low altitude; low open kind of release and all that went well and yeah. So this is going to be the most cogent podcast I've ever done, yes. Because I probably have about an eighth the normal sleep that I have at this point in the week, so, yeah, it should be good. It should be good.
- Greg: Well, I just gave birth to a new book, "Olympic Weightlifting for Sports", which you can pre-order right now on Amazon, it should be out, we're saying July 1st but probably we could do before that.
- Robb: Nice. Now do you cover little about how to plug this stuff into the training of the various sports or like what's kind of an overview or the content there?
- Greg: It's similar to my first book in the sense that it provides teaching progressions, information on evaluation, program design, all that kind of stuff but it is geared specifically towards non-competitive weight lifters and for that reason, things are very much simplified, they're more concise.
- It's intended to be essentially much more economical and kind of efficient in terms of teaching if you're a coach or in terms of learning if you're an athlete, simply because everybody's got a lot less time to focus on this kind of stuff because they actually have their own sport skills and conditioning and what have you to focus on.
- Robb: So, do you want to jump in on the questions?
- Greg: Yes, I absolutely do.

Robb: Cool.

Greg: Okay. Trevor says, "Hi Robb and Greg, I've been eating Primal for the last year and doing power lifting and some cardio at the gym. I was seeing good results until my sugar addiction caused me to back slide a little. I'm trying to get back on the wagon and my gym regimen is currently two days a week lifting and two to four days a week doing a combination of sprints and steady state cardio on the run machine.

I work out fast in first thing in the morning and I've started experimenting with branched-chain amino acids on my lifting days; 10 grams pre-workout and 10 post. It usually takes me about 40 minutes to get home and prepare a meal after the workout, usually eggs and bacon.

So my question is, given that my goals are mainly fat loss with secondary goal in strength and muscle gain, are the branched-chain amino acids necessary or are they going to be a hindrance? I've heard they are very insulinogenic. Will this affect my weight loss or otherwise negate the effects of fasted training?

Thanks for your answer and keep up the good work.

Robb: This is a good question and I've talked with Matt along a good chunk on this stuff and I think that whenever you are relooking at a leaning protocol, trying to lose body fat like the real name of the game with the whole thing is trying to maintain as much muscle mass, as much lean muscle mass as you can during the whole process.

If you take kind of a slow approach to this and have a mild calorie restriction and you stretch this out over a long period of time, you know 8, 12, 16 weeks, then -- well, one thing, it's much more benign, it's not so painful and also the likelihood of losing a significant amount of muscle in the whole process can be really problematic.

When you look at the figure competitor body builder scene like, this is where you see people have kind of refined this to a high science and you also see people who aren't as fastidious in their day to day dieting, they get too overweight, they have to kind of crash diet and they end up, you know, maybe getting quite lean but they end up losing a lot of muscle mass in the process.

And branched-chain amino acids are a phenomenal adjunct to this whole thing because we're going to mitigate catabolism of your scale of the muscle, branched-chain aminos are kind of the first place that the body

starts looking for a gluconeogenic source when we're calorie restricted and glucose starts dropping a little bit and stuff like that and this is a really good illustration of a-- you know, even though insulin levels can be high in a particular situation, so like we've got insulinogenic characteristics of these branched-chain amino acids, but if you're overall kind of calorie restricted and then you get some of the anabolic effect of these branch chain aminos, even though they may have an insulinogenic pulse and normally in kind of low carb land we would say, you wouldn't be able to access body fat, that's going to be a problem from fat loss perspective. The calorie balance and also other anabolic hormones are a factor here and so it doesn't immediately negate the ability to lose body fat.

**[0:05:02]**

Robb:

Like Martin Berkhan with Leangains, he gets some pretty damn good results doing some tinkering with intermittent fasting and really liberal use of branched-chain aminos and when I was talking about Mat Lalonde was kind of his take on this whole thing that what you're seeing in, say like that Leangains approach is a very anabolic way of eating high-protein, lots of branched-chain amino acids, punctuated eating which is doing less on like the nutrient partitioning side but more just kind of creating an opportunity to not overeat.

So it's kind of a convenient way to induce a mild calorie restriction, mitigate the catabolic effects of the calorie restriction with branched-chain amino acids, and then you've got a pretty good formula there.

So that's maybe getting a little bit far off field from what the original question was but I'm hallucinating and seeing pink elephants on my desk right now so that's [laughter] seriously.

So that, you know, I think that that's all good ways to go, I would even say that you could probably go --it looks like we're looking at about 20 grams of BCAAs total you could, you know, I see folks run as high as like 40 grams during leaning protocols, maybe even more than that.

One thing to keep in mind with branched-chain amino acid supplementation, it can -- if you use it later in the evening, it can kind of blunt or compete with tryptophan going through the blood-brain barrier and being able to create serotonin and melatonin, so that's a thing to consider.

BCAAs can be a little bit stimulating and that you are blocking the effects of serotonin.

So that's just a thing to keep in mind of you used it later in the evening, later in the day and you're having a tough time falling asleep, then you might need a repartition that to earlier in the day.

Greg: Josh says, "Fellas, how much dietary fat is too much? My dietary regimen pure Paleo, very low carb, moderate protein with periodic protein fasting now finds me consuming at least 70% and often up to 90% of total calories as fat.

I enjoy eating this way and look and feel great but I'm suddenly realizing now that I don't find many even in the high fat Paleo crowd who are eating this fat. What do you think? And do we know of any indigenous diets this high in fat?"

Robb: You know, to some degree, I think like, when we look at legit ketogenic diet protocols for like epilepsy, if we look at some of the reconstructed, you know, Inuit diets and stuff like that. They're definitely in that 70% to 80% calorie range, I don't know if it gets up as high as 90% but I don't really see that being a problem.

The main issues with all these, you know, if you eat too much fat then you get steatorrhea and if you sneeze you're going to have a horrible mess on your purchase so **[laughter]** that's an issue.

There are some back and forth on whether or not being in ketosis every day, all the time is the best way to go; thyroid issues, all the rest of that, you know, it's interesting, I had operated for years on a largely, you know, like cyclic ketogenic; more ketogenic than not, you know, not really liking the carb loads. And I did fine with that until I was trying to do that with CrossFit and the really glycolytically demanding nature of CrossFit is just such that you've got to throw some carbs in there because it is so impactful on the muscle glycogen levels that you're going to get some glucose production by hook or by crook.

And if you start doing it via gluconeogenesis, I think that that's really bad news, so, I mean, if all of these is working for you then that's cool, I would just kind of keep an eye down the road or is your performance still maintaining well, Scotty Hagnas wrote an outstanding article, "High-Carb Paleo" and Greg, was it Issue 74 of the Performance Menu?

Greg: You know what, they all are the same to me at this point.

Robb: I think it was right around issue 74 but just look for Scotty Hagnas, "High-Carb Paleo Performance Menu". It's a really, really good read and I think it provides some good insights and some good balance on this whole ketogenic issues.

Greg: It was issue 74.

Robb: It was issue 74, okay, cool.

Greg: And the individual article is actually available in the store. If you just go to the [Catalystathletics.com](http://Catalystathletics.com) store and search "High-Carb Paleo", it'll come up.

Robb: Cool. Cool. So I would, you know, even though this stuff is, it seems like, you know, you're diesel fuel, you're running on fat and that's all good. I would give that a read, I would highly recommend everybody give that thing a read.

**[0:09:59]**

Robb: And just kind of keep in mind that there are multiple ways to tanker all these stuff we talked about at a lot on other podcast but just -- yeah, I had a couple of figure competitors Ping me recently and it was just interesting because they both had kind of a similar experience.

They shifted in to using CrossFit actually for their figure competition preparation which I think works really, really well and they got very, very good results the first go around doing kind of more of a ketogenic dietary approach.

But then over the course of time, you know, they start bogging down, their performance starts dropping and all the rest of that and I think that the combination of really glycolytically demanding activity plus low carbohydrate is just going to catch up with you at some time.

If you're just lifting weights and doing gymnastics, it may be fine; you may still need to do some sort of a carb reefed, you know, every two to five days or something like that to deal with hormonal dysregulation; I'm still kind of back and forth on that stuff but, you know, the bottom line is that if you are really training at a high work output, then you definitely need to throw up some carbs in there, so.

All right. Again, wandering like a wander beast.

Greg: To me, it seems no different than usual, so don't worry about it.

Robb: Okay. Perfect.

Greg: But I also am listening just as little as usual, so I couldn't really tell you.

Robb: It's perfect. The funny thing with the whole baby and the lack of sleep is that you get this really weird kind of time dilation process and like normally my drive down the hill to like go to Safeway and get some food, it feels like just a big bang, it's done and the other day when I did it, it seriously felt like I was in the car for like three hours.

Greg: Awesome.

Robb: Yeah, good times.

Greg: Let's see here, Chris says, "Hi there. I've been eating a Paleo Diet for a little under a year now and I've seen all the expected results you talked about. Haven't felt this good in a decade. My question is this, my wife saw this on the web and I didn't have a good answer for her, it was from a review of 'Good Calories, Bad Calories' on Amazon. And this is the quote here, "There is recent research that shows extremely low carb..." In parenthesis, "Ketogenic diets such as Dr. Atkins increase methylglyoxal levels. Methylglyoxal is extremely reactive and could cause much more rapid aging on a long term ketogenic diet than a glucose based metabolism. So my take is that you shouldn't be in ketosis by choice." End of quote.

"What's your take on this? Do you know about any research like this? Thanks. "

Robb: Yeah. This is a great question and the interesting thing is that, so methylglyoxal is one of these advanced glycation end products. It typically comes -- there's a couple of different pathways that methylglyoxal can pop up.

It can pop up out of ketone metabolism because it's both a ketone and a aldehyde chemically but interestingly it can also pop up as a consequence of glycolysis and so methylglyoxal under ketogenic circumstances, you see an immediate peak in methylglyoxal levels and then it drops quite low actually over the long haul.

And then also we have another adaptation under a ketogenic protocol or a lower carb protocol which kind of the proof reading enzymes and the

things that undo advance glycation end products that are related to undoing methylglyoxal reactive species, those things up regulate.

So when you start eating a ketogenic diet, you get a spike and then a drop in methylglyoxal production and you get an increase in the enzymes that undo methylglyoxal association with proteins.

The state that you see rampant methylglyoxal production and a very low level of the enzymes that undo the methylglyoxal reactivity is actually during glycolysis and when we start seeing a lot of glycolysis is when people are insulin resistant, they're not able to access carbohydrate in a normal fashion for fuel and we actually see people heading in this more kind of acidotic glycolytic kind of direction.

So the state where you see a ton of methylglyoxal problem is in that diabetic or peri-diabetic state that is basically glucose field.

So, this is all -- though we still need to consider insulin resistant state and stuff like that like we have historical examples, you know, the Okinawans, the Kitavans, very high carbohydrate intake, very, very low levels of reactive oxygen species, good insulin sensitivity and all the rest of that stuff but if you're not Okinawan or Kitavan, if you've got some sort of insulin disregulation like I feel like I probably still have, you know, relative to probably my phenotypic optimum would be, then I probably do better being a little bit more on the higher fat side of things.

**[0:15:05]**

Robb: And what I have done for a long time is just punctuated carbohydrate feedings as per necessary from training and then I'm pretty good to go on that.

But the information that this person is quoting is very narrow and not accurate over the long haul and is not really considering the full picture. They're being every selective in the references that they're sighting with regards to the methylglyoxal.

Greg: That's weird. That's exactly what I was going to say.

Robb: I figured it was but you would be more concise in your description. I'm a bit worried of you today.

Greg: It's not so much more concise, it's just less accurate. Okay. This next one is titled, "Emasculation for procreation." I like the rhyme. Chris says, "Hi

Robb and Greg, love your work and enjoy listening to the great mix of knowledge and hilarity on your podcast."

Robb: I'm sure that that's going to be maintained on this one too.

Greg: "I've recently become a father and I'm aware that Robb is expecting the Wolf cub anytime now so I thought this might be a topical question more than you know. I'd love to hear your thoughts on the study linked here and news article suggesting male testosterone drops following fatherhood. Shocker. It's proposed that this is an evolutionary trait to help males to be more nurturing to their children and less likely to be chasing other testosterone driven endeavors. I can't help but wonder though, is this an evolutionary trait or simply a function of less sleep and more stress associated with having a new little person to look after?"

Robb: I think that that last part is a really good consideration because, you know, it definitely does alter sleep patterns and that, you know, all the rest of that stuff but when you look at these things, even, you know, when you actually can buy in to this evolutionary template which I know is just often times a controversial topic for some people and gravity works, evolution doesn't and all the rest of that stuff but, you know, within this and people may be squeamish about this but from a, kind of, evolutionary perspective, you don't have to look back too far and find that we probably were having kids at a much earlier state in life.

You know like, we weren't waiting until late 20s, late 30s to have kids, we were having them quite early like boys and girls went through puberty and, you know, stuff happens and kids get pregnant and that's kind of the way that that stuff roles out and so I think that that's another piece of this. Even on the sleep deprivation side, I remember doing a lot of really squirrely stuff in my teens and not sleeping too damn much.

Sometimes for several days on end, and it kind of sucked but it wasn't all that big of a deal relative to know like I'm making deals with any deity that will listen to me to get me a little more sleep.

So I think that this evolutionary template, you know, is so valuable in looking at that stuff, so even looking at, you know, why is it so difficult for us to weather the child-bearing thing?

Well, most of us are typically having kids much later in life than what we were normally biologically wired up. By age 30 to 35, typically half of us were already dead due to a variety of things, so we already had kids, we



maybe were approaching, you know, grandparenthood by, you know, quote, mid-life now. So that's a piece to this.

And the research on this, I think is pretty good and from an evolutionary theory and kind of gain theory type stuff, it really makes sense, there's a bunch of different, you know, biological trade-offs.

So like when you're looking at, fecundity, like the ability to have children, like how fertile are you and, kind of, evolutionary biology and game theory; men and women even have different strategies.

With the female strategy it makes sense to be not particularly promiscuous in general because if you get pregnant and you don't kind of that familial unit then wearying the baby is going to be more difficult.

And so biologically it kind of makes sense for women to be less promiscuous. For men, it doesn't matter as much if you can run around and knock up a bunch of women and have a bunch of babies, then you win the biological lottery and that that's a very amoral and all the rest of that stuff but from just a, again, like a evolutionary biology success story that totally makes sense.

And so woven into this, it also makes sense that there's going to be like some really powerful kind of imprinting that goes on between -- in this case, specifically, like a father and a child that bonds the father there and kind of keeps them there and mitigating testosterone levels definitely make sense because you're going to be less likely to philander and less likely to take risks when you're out doing stuff and mitigate risky behavior and all the rest of that and that's probably good from the child-rearing side of things.

**[0:20:10]**

Robb:

But even within that, there's a dynamic trade-off between if you're so lethargic and not able to act then you're not even able to do basic, you know, provisioning for your family unit. So it's interesting stuff and that's where I think that of and when people can get some sort for an evolutionary biology perspective on this, it answer these questions and kind of paints a pretty solid picture about how the moving parts work.

Greg:

Cool.

Robb:

Yeah.

Greg: All right. Let's get away from the baby thing for a minute; enough with the babies.

Robb: It's Squatchy again man, he's back loading these things. That bearded-- that bearded ghoul.

Greg: Okay. Sam says, "Hey, guys, I'm a big fan of the podcast, been Paleo since January 2011, down 50 pounds. Nice [crickey]

My question is pretty straight-forward, how important is general flexibility to being an all-around physical bad ass. I generally strength train and play basketball three to four times a week, swim once in a while and do lots of walking since I live a mile and a half from campus."

That's what they made razor scooters for, bro.

Robb: Seriously.

Greg: "I realized that I probably don't need to press my forehead to my knees and my pursuit of jumping high, squatting lots and getting jacked over all but is there a base level of flexibility I should be reaching for?

Where can I go other than MobilityWOD for some guidance? Is yoga worth a look? Thank you both for being such mature, intelligent hosts. I hope that people will one day write folks songs in your honor."

Oh, jeez. One can only hope.

Robb: Oh man. That would be cool. A Robb and Greg folk song.

Greg: Yeah.

Robb: Pretty cool.

Greg: Extra folksy please.

Robb: Is yoga worth a look? It depends on how hot the chicks are in the class **[laughter]**, you know, MobilityWOD is obviously outstanding, there's some good stuff out there. Gosh, you know what, it's interestingly -- it really kind of depends on what you're up to, you know, like, if I'm quote just lifting weights and doing some sprinting and stuff like that, my mobility and flexibility needs are relatively easy to maintain, since I've been doing a lot of jujitsu and I sit a lot, I find a lot of-- a lot of things that I used to be able to pull off easier like triangles and body triangles and

stuff like that are really difficult for me because my hips are not as mobile.

Like my lateral rotators and stuff like that are way tighter than what they used to be and so stuff that I used to be able to do quite easily like throwing in like a top side triangle and stuff like that, I have to really work out it now and it's hard because the mobility is kind of gone.

Greg: How about the Jiggy Plata?

Robb: The Jiggy Plata, you know, you just have to rally for that one and just fucking make it go. So, I wonder how Valla is doing. That guy was cool.

Greg: Seriously?

Robb: Speaking of bro.

Greg: Dude, bro. Bro, dude. Dude, bro. Dude, bro.

Robb: Sorry guys, flashback there. So from John Franco back in the old days of NorCal Strength & Conditioning.

So for me, if I start looking at some jujitsu then I need some more specific mobility work, if I play around with any type of Capoeira stuff, you know, like doing back bends and back walkovers then I need to go way heavier down the rapid hole of mobility to be able to do that.

So I think in a lot of ways it's just, you know, can you-- can safely and successfully like squat, dead lift, power clean, have good overhead position, I think like thoracic mobility is so huge over the long haul.

Then it's just kind of within the constraints of what it is that you're doing and if you're doing Capoeira or jujitsu or something you might need more specific mobility but I don't know that that's going-- it's going to be task specific and it's not going to impede you being lean, strong and jacked.

And if you do a different activity it requires more mobility, like you get into rock climbing and you really need like some unilateral like abduction that allows you to like get your foot up this high as like your nipple level to be able to, you know, get your toe on a little nugget of rock to pull yourself up, then you're going to have to do some more specific stuff.

But maybe -- Greg, what are your own thoughts on that?

Greg: I would say, yeah, that kind of consider there to be a baseline level of flexibility for the general human being. And I kind of look at that as the ability to sit into a squat position with a neutral spine and to be able to actually open your shoulder fully to -- in other words, get into a full overhead position and so that of course includes shoulder mobility directly but also thoracic spine mobility and all that kind of stuff.

[0:25:02]

Greg: So, you know, whether or not you need more than that or something more specific than that, like Robb said is, totally goal specific and it sounds like you're playing basketball and doing some general strength training, you probably don't need more than that.

I mean, basketball is going to require a whole lot of flexibility with the strength training, being able to squat in that position is going to mean that you can hold on to a deadlift or a clean or a snatch with a pretty good posture and, you know, put things overhead safely and effectively.

So, I think you're pretty much set there, in terms of where you can go other than MobilityWOD, I don't think that you need to or know that you need to go anywhere else if that's really all you need to do, in terms of...

Robb: Gymnastics Bodies are good, Ido Portal has some good stuff, you know, just for fishing around and looking at things.

Greg: Yeah. My only reluctance with that stuff is that I think a lot of times people get super carried away with their mobility and they go way beyond the necessary degree for themselves and so I would just caution against that, not to say those aren't good resources but just use them wisely for yourself and the same goes for yoga.

I mean, yeah, I've historically been fairly anti-yoga, although mainly more just to poke fun at people but we wouldn't -- with yoga, I think a lot of times again it's so non-specific and I think a lot of times yoga classes just like any other class in the fitness world especially are run poorly and without an eye toward function outside of yoga.

So in other words, putting a lot of stress on joints that ends up causing problems later down the road or for example, ending up with a bunch of mobility in your lumbar spine rather than in your hips, typically those things don't do well with athletic pursuits.

That being said, it doesn't mean all yoga teachers are bad, it doesn't all yoga is bad, it just means be cautious and pay attention to what's going on and then the one good thing it definitely has going forward is that it's a dedicated period of time that you're committing to for stretching.

And so if you really need that help and that kind of accountability to work on your mobility, then it's a great way to do that.

Robb: Yeah, I've just ordered some of Scott Sonnon and his DVDs like the Prasara Yoga and the Grapplers Tool Box unleashed or updated, I forget which one but it's got some really specific mobility drills for grappling. You know like ground contact stuff and transitional things that help you work your ground gain transitions as well as kind of specific mobility.

And so instead of going and doing like an Asthanga or vinyasa yoga class, which should be okay but then this thing kind of strains together movement but it's really specific to the stuff that I want to do.

Greg: Yeah.

Robb: So yeah. Cool. Let's see here...

Greg: Here's the one for you.

Robb: Oh man. Fudge.

Greg: Fudge.

Robb: Okay. The subject is "High-Rep Oly Work." In parenthesis, "It's not what you think, I swear." Except that it is exactly what I think. Okay. Brain says, "Greg, thanks to you and Robb for all the real info and efforts, this is a novel so I won't be hurt if you edit it at will. I just listened to your interview with Nick Horton and I had a question about your comments using high volume Olympic lifting as conditioning.

I agree whole heartedly that there are safer, less technical ways to train metabolic conditioning by using Olympic movements, have some ideas about effective uses and was wondering what you guys think."

I think some athletic populations, probably not Wiccan or your fitness people can find value in training the body to execute complex motor movements in a fatigued state.

I also wonder at the value of using high-rep Olympic movements to train repetitive submaximal power production. I think sports like basketball and volleyball. Having a one rep max vertical jump of 42 inches is good but if you are down to 18 inches at the end of the game, not so good.

I am not assuming you're saying that the CrossFit WOD style programming will effectively train that dynamic either, just considering potential uses for high-volume Olympic movements. This is also predicated on proper movement mechanics.

I got to spend some time in the military doing some sketchy stuff, the military training methodology is to take something dangerous and inject as many controls as possible to make it permissible on a training environment.

Diving for example is inherently dangerous but we can safely sit in the shallow end of the pool and learn to breathe than the deep end to teach emergency responses and finally to open water during the day, then open the water night and low-vis dive. Low visibility dives.

Yes, you might die in the shallow end of the pool but it is highly unlikely in real to be safe compared to diving inside an unstable sunken wreck.

**[0:30:00]**

Robb:

I see high rep only work in the same light, you have a balance predictable load in a controlled stable environment and hopefully with a knowledgeable practiced coach watching your movement **[laughter]** shallow pool. Why not assume a small amount of relatively controlled risk in the gym if it reduces risk in the court/field/street unstable wreck.

If I can't maintain proper mechanics on the platform for three minutes, what does that say about my ability to maintain proper mechanics on my 40 bound attempt after running five miles, the average distance traveled on a basketball game." That's why I don't play basketball.

"Olympic lifting has so much carry over to other athletic endeavors that I can't believe that using it in this light wouldn't correspond to better athletes and less injuries.

I haven't yet had the opportunity to test it but I suspect the rewards outweigh the risks especially when you mitigate those risks."

Greg:

Let me throw something in here relay quickly...

Robb: Dude, go ahead.

Greg: You know when we're talking about risk rewards stuff, even when we're looking at the quote dangers of like high rep Olympic lifting, say like in a CrossFit context and stuff like that. It's still way safer than even playing basketball. Like the-- in the military, the greatest medical out is not IEDs or bullets, it's basketball.

So playing football, playing rugby, playing basketball, those things are all a lot more dangerous on just kind of a risk management kind of gig but when you start looking at the Olympic lifts, like I feel like I'm technically proficient enough that I can do things like -- what was the guy, Javorek that was pretty famous with the complexes, but these things were really well thought out and you that you did say like 10 deadlifts and you started with a very light weight and then started progressing, so you did 10 deadlifts, 10 power cleans, 10 push press, 10 back squat, 10 bent row and then you would rest or you would, you know, whatever it was.

So you could get a metabolic effect, kind of a body building effect but the loading was really specific and the technical foundation was unsalable like you did not progress a load to a point in which you were, let's say doing a snatch and also doing the Chinese splits to catch it. And that's really the key point there.

Greg: Go ahead, throw that foot out there man, get it up [laughter]

Robb: If you remember who put that in the show [cross-talk]

Greg: Oh my god, thank you so much. Matt Wichlinski, thank you so much for making that video, it has entertained me to no end.

Robb: Oh dude. I almost -- I almost piss myself on that thing. So, you know, there are in my opinion protocols for using what we would call high rep Olympic lifts but they are not in a competitive environment, it's not as a, you know, it's really specifically used and used in kind of block prioritization style and that the technical foundation is assumed and good.

And so, you know, neglecting or deficient those characteristics; proper programming, proper loading, really good technical understanding, no real allowance for technical faults during the performance of these movements, then, you know, if you're not meeting all those standards, than I think like catapell swings, and other stuff can produce more benefit.

And I think there's something really important to point out here, the basics should, you know, strength and conditioning should be a GPP endeavor but then when you're talking about still having rebound in the 40th, you know, your 40th rebound attempt on a basketball game, that comes far more from playing a lot of basketball than it does from doing lots and lots of Olympic lifting circuits.

Like you get that basic strength, strength before strength endurance and then you get your sport specific activity to really refine the sport. So that's my **[cross-talk]**

Greg: Yeah, and I would completely agree with everything that Robb just said, so let me -- this could be a really incoherent, long winded answer, so let me try to go through and...

Robb: Like mine.

Greg: I thought that was actually pretty concise and well-thought out.

Robb: Okay. Cool.

Greg: Surprising actually, considering how little sleep you've had. So, really it's embarrassing to think that I'm having more trouble with more sleep than you are.

So I would say, the same thing. Whether you're talking about Olympic lifts for low reps or high reps, always, the foundation is technical proficiency. If you don't have that in place then anything you're doing with the Olympic lifts is not going to be effective and it will be relatively unsafe. You know, whether you're doing one rep or 30 in a row, it doesn't really matter that much.

With regard to trying to set this up so you're like kind of pushing the risk part of it to prepare for the risk of the real world, that's not really how strength and conditioning is typically approached.

**[0:35:07]**

Greg: It's more building athletic qualities and physical qualities that will help a person withstand the potential risks of the sport or the real world, not kind of like pushing them into that position where they're almost testing them.



I think that's kind of a dangerous game to play and not to say that everything you do in the gym has to be perfectly safe, of course, it's not; there's always going to be risk involved, anything you do physical.

So with regard to the power production in the fatigue state like Robb said, most of that needs to come from more sport specific work. Whether it's football, basketball, you know, rugby, soccer or whatever the case is, you know, I think boxing and other fighting sports are the best examples of that, they are very technical, there's a lot of sport specific skill involved but I don't care how much you train in the gym, that stuff will not transfer over to your game as well as sparing and things like that.

Well, that's what's really going to prepare you to have that stamina and the endurance and the ability to maintain your -- the highest possible technical accuracy in that fatigued state.

Having said that, there are different ways to go about training the Olympic lifts and training that power production in a fatigued state without setting yourself up for the risks that we're talking about being inherent to doing high rep Olympic lifts.

For example, in kind of the preparatory phase of a training cycle, it's not uncommon to have people squat first and then do their classic lifts, that's a really simple way to not only force better motor unit recruitment during the classic lifts, you know, due to that kind of pre-fatiguing of the legs and the hips and all that kind of stuff, it's also a nice kind of mental thing and then when you make that switch, obviously you've previously trained more motor units, you're going to be able to get more power out of it and now you go to a state where you're training fresher and you're able to pump those lifts up.

Doing the lifts following a day of heavy strength training or, you know, other endurance training or whatever else you're going to come in to as somewhat fatigued.

So you're going to be incurring fatigue in different ways when using the Olympic lifts that we don't require you doing those lifts a million times to set up that fatigue and of course all that being said, if you take someone who is technically proficient, who's built that foundation, you can put them in a situation where they do 30 snatches in a row or 30 clean & jerks in a row and each one of them looks very similar and looks very good.

There are-- conveniently enough have been a couple of examples of that lately or a couple of weightlifters for God knows what reason have done, you know, Grace or Isabel or something and they've done it at heavier weights and they've done it well.

And how the times were not maybe as fast as, you know, your top end cross fitters but as Robb said, you know, with regards to the Javorek complexes is, that's kind of missing the point anyway in my opinion.

If you're using those lifts, specifically for power production or whether or not you're doing it to build stamina of power production in a fatigued state. They have to be done well, they have to be done properly to reap those benefits if you start doing them crazy and you're doing a round back, you know, RDL kind of **[cross-talk]**

Robb: Hip chunk, hip swing, yeah.

Greg: you know, neck band to get under it, well, you're missing all the power production of the legs and hips anyway, and then so that's the argument in the context of CrossFit that continually just drives me bananas, is this whole idea is like, wow, you know, there's no other lifts that can, you know, have this kind of effect under fatigue and this and that and it's like, well, they're not producing the effect that you claim they are or think they are anyway so you really --all you're doing is just setting yourself up to blow out the risk or, you know, shit at this scout.

So I just -- I don't really see the need, I really, really don't. And no one I trained is ever going to do those, do the lifts in that situation. If you want to experiment with it, by all means, give it a shot, be careful, don't do anything stupid and put other people in danger for the sake of experimentation. I would suggest you probably do it with yourself first and then if you get hurt, you have no one else to blame.

Robb: And you know, when you take out with this, like when I was reading -- so somebody shot us this thing from the -- across the message board, like the whole nine kids and all these drama and everything and one of the guys who is commenting on there, you know, to stay in good stand and you always have to take a shot at Greg and I and he was basically like, "I don't listen to anything that Robb says anymore because he's got an agenda, blah, blah, blah." Okay. Cool. Whatever. I've got an agenda.

**[0:40:13]**

Robb: So, go look at what Javorek recommended for this stuff. He was an Olympian, he's produced tons of Olympians, and he was writing about this stuff in the 80s.

Now I know that theoretically CrossFit was founded in a -- what is it 1974 now or something, '76 or something like that?

But Javorek was like...

Greg: According to the t-shirt yes.

Robb: Yeah, according to the t-shirt. So Javorek was writing about this stuff in the -- in the early 80s, he's trained tons of Olympians, he was an Olympian, he's got no dog in the fight; so go look at somebody who's done this and done it really, really well and see how a Olympic caliber athlete and a Olympic caliber coach actually uses high rep Olympic lifts.

And then it's not Robb, it's not Greg, it's not our acts to grind with CrossFit, it's somebody who's actually produced Olympians. And then just go with that and then that's not our fucking opinion. It's somebody who could school all of us on the utility of this stuff and has been doing it for like 50 fucking years.

So, you know, that would, you know, to extend on what Greg was saying, you know, tanker with it yourself, but go find somebody that's actually done this in an effective way to produce benefit for athletes and you'll notice that they've got in season and off season, it's typically a block prioritization used typically for either some anaerobic kind of threshold type stuff or actually body building type stuff where you are suppose to progress these complexes over time.

You just start off with a relatively not light load and then increase the load each time you do the complexes.

Robb: Yeah, and honestly, going back to the basketball situation and, okay, it's good if you can jump 42 inches in the first quarter but if you're down 18 inches in the last quarter, not so good.

Well, you're not in basketball sitting there under the rim, jumping 42 inches, 30 times in a row, trying to get a rebound; maybe once or twice, maybe very rarely three times but then those big power production efforts are very much spread out over the course of a game with much lower intensity, kind of, endurance related work.

And so I don't see how doing a 30 rep snatch or clear or whatever workout is representative of that game anyway.

Greg: That's a good point. That's a really good point.

Robb: So I don't know. Yeah, give it a shot. Good luck. Don't kill yourself. And no, you know what, I will make one more point and I think I made this in the Nick Horton podcast also but every single rep that you perform is practice and every single one of those is teaching your body to do something, if you do that rep well, it's teaching your body to that lift well. If you do it poorly, it's teaching your body to do it poorly.

Now, I don't know about you but I want to make the vast majority of my training volume good. You know what I mean?

I want to do 90 great reps and a couple shitty ones because look how, you know, I come out at the end of that.

Now, if you're doing these 30 rep workouts and 28 of the reps are totally shitty, well, guess what, you have a lot of work to undo that bad practice to get back to a level of proficiency.

So, I just -- it's like from every angle I approach it, I just don't see anything useful coming from it.

And, you know, again, don't listen to us because we were assholes with access to grind, listen to the dude that wrote the talent code who's a, you know, a neurophys -- everybody in neurophysiology like this study of how we learn things, my lineation of neurons and stuff like that, they are crystal clear on this topic. Practice needs to be perfect and when form degradation starts entering in, you need tens of thousands of reps to become kind of master level at a particular activity and the name of the game and anything that you're doing is efficiency and so if you're to do it, you got to do it right, you need lots and lots of reps at it and like Greg just said, if you're doing garbage reps, that is what is going to neurologically imprint in your brain and this is a lot of my problem with the way that a lot of folks -- I don't want to go down this road too much, we've talked about it before but, you know, introducing inappropriate progression to people.

You know, you get the basics down and you--if you want to do conditioning type activity, you use things which are non-competitive and the things that you want to have a high level of technical proficiency. If

you are just teaching someone how to deadlift, you don't do a skill session and then expose them to metabolic loading on that movement.

[0:45:04]

Robb:

And then they start getting funky, you know, hip shooting up and weird back stuff going on because you imprinted far more reps poorly than what you did well and you're not going--it's going to be a bastard to undo that stuff.

So, we're not being dicks, like what you **[laughter]** like this, this is just the way this shit works and the people that are good, you know, like saying the CrossFit is seen on a high rep Olympic lift, so it isn't because they did tons of shitty reps, it's typically becomes--they came from like a track and field or an Olympic lifting background and they had that skill set or maybe they were a gymnast and they, you know, their very technically proficient at learning new recruitment stuff but if you are not spending a lot of time on the technical elements and really thinking about, you know, basic GPP which is strength and then appropriate conditioning base to be able to get in and do your sport specific stuff and then the sport stuff, again, like Greg was saying, you know, you're practicing tons of lay ups and tons of rebounds and you're getting all that stuff via the sport.

I was talking to Roy Dean who's a black belt in Brazilian Jujitsu and Aikido and Judo; and John Frankl who's a black belt in Brazilian Jujitsu, got his blue one and purple belts from Hicks and Gracie; he's also a PhD from Harvard in Korean literature and I was talking to these guys about, you know, like what additional strength and conditioning do you guys feel like I need to be doing for my jits game? And they're like, well, honestly, if you just wanted to be really, really good at jits, I would just do jits.

And like, you know, very minimal like three sets of five on squat, three sets of five on press, three sets of five on pull-ups, one day, you know, a deadlift, a bent row and a dip on another day. Three sets of five and just trying to linear progress, I had to do a little tinkering progression and that's all you need for that and then you do your sport and you get the technically and the conditioning from the sport because it's so damn specific.

And then while you're doing that sport you endeavor to do every single thing, every rep in practice as perfectly as you can.

Greg:

Yeah.

Robb:

Yeah.

Greg: All right. Totally...

Robb: Dude, are we just being dicks on that topic? I mean...

Greg: No. Here's the thing. In going back to the little message board deal, you know, anytime you make a critique or a criticism of something that CrossFit uses, it's viewed by the loyal as an attack on CrossFit and it's not.

That's a really ridiculous way to look at it, if anyone else were doing this, I would be pissed off about it, it doesn't matter that it comes from CrossFit, CrossFit happens to be doing something that I disagree with and that's fine. It has nothing to do with CrossFit itself, just the fact that I don't like high rep Olympic lifts.

If fucking performed better or Athletes' Arena or whoever was promoting it, then they would have to get lumped in in this discussion too, so quit getting so butt hurt about it and just understand that, you know, this is an opinion, if you don't agree with it, you don't have to but you don't have to take it as some kind of personal attack on the people you're loyal too and I mean, that's fantastic, loyalty is wonderful as long as it's not blind.

And you know, how about it, if that's what you want to do, it doesn't hurt me personally, my elbows are fine, my shoulders are fine, my back is fine because I don't do things that I think have the potential to fudge me up in that way and I don't let my clients do it either because I don't see a benefit for it and I see a lot of potential risk and it's really that simple.

Robb: Okay. Thanks man

Greg: So maybe we are being dicks. But if that's being a dick then I'm going to continue being a dick.

Robb: Yeah, I wish that you could do sloppy shit and good stuff would come out of it but it just doesn't.

Greg: Well, outside of college, yeah.

Robb: yeah, outside of col... seriously. And the other side of that is I wish that you could do a ton of non-specific stuff. I wish I could go do a bunch of circuit training and some stuff in the gym then go out on the jits' net and just fucking crush people but it doesn't work, that's where like having a really clear understanding of GPP versus SSP, the General Physical

Preparedness versus Sports Specific Preparedness, analyzing your game, trying to figure out where you're deficit.

Like for jujitsu game, I'm always a little bit deficit in the conditioning side because I don't like doing longer aerobic work, you know, and my schedule is tight enough that I get enough jits to progress but I'm not doing it five days a week so that I'm really building that capacity.

And so that's always an area that I'm kind of struggling on but the interesting this is me doing me a ton of extra work. I can do some extra, let's say like, an aerobic [0:49:58] stuff and it helps me a little bit but it's nothing compared to actually getting in and just, you know, doing tons of reps doing like position sparring and stuff like that.

**[0:50:10]**

Robb: That gets me into really, really good shape and it provides an opportunity for me to get thousands of reps doing the actual stuff that I'm supposed to be doing, not doing an Olympic, you know, combos.

Greg: Yeah.

Robb: So, yeah.

Greg: All right.

Robb: We spent like 30 minutes on that one; that was supposed to be one of the short questions.

Greg: Well, I think people do it on purpose. Get me all riled up.

Robb: Seriously.

Greg: All right. Well, do you want to wrap it up on that one, you want to do one more, how are you feeling?

Robb: We could do this one. It will be pretty quick.

Greg: All right.

Robb: I think it's going to be pretty quick.

Greg: Kevin says, "I'm a strength and conditioning coach and I just received a call from a mother of a female basketball player, a sophomore. Her daughter was diagnosed with Pott's Disease a few months ago, she plays

for an AUU basketball team and she is being cleared to play. The mother however said the daughter gets very light headed and she lost a lot of weight, she was skinny to start with, she is supposed to drink 80 ounces of water a day and is apparently on several medications.

My question to you is, how would you train someone with this disease? My plan is to do an assessment; I have an Omegawave as well as a joule HRV monitor. She has apparently become very tight and weak, she was already weak to start with. Any advice and recommendation that I can pass on to this girl would be greatly appreciated, thank you and your podcast is fantastic."

Robb: We'll do what we can, even though we're dicks.

Greg: Exactly.

Robb: So Pott's Disease is extra pulmonary tuberculosis, and it sets up shock and the joints, typically the joints of the spine and it's pretty gnarly stuff, so I mean, I personally like, if I were training this girl, I would get some really clear instructions from the doc on what he or she feels like; the limitations are on this gal and my gut sense would be, very conservative sled pulling, stuff where like thoracic and basically, you know, core stability from ear lobes to sphincter is--there's not even an iota chance of something going wrong.

So I would even be a little bit nervous about squatting and deadlifting without some clearance, if you do do it, I would do it fairly light, obviously non-fatiguing, I assume that she's probably on antibiotics for this and it takes a hell of a long time to get tuberculosis to resolve and so this is going to be a long, like potentially six months or a year of therapy on this stuff.

And so you're just going to have to be really conservative. I'm actually intrigued that she's still allowed to play basketball, so I'm sitting here saying on the one hand now that I think about it, we just had this discussion about, you know, risk and safety and all that.

So I'm recommending a really conservative in the gym scene but yet she's out there and people could be like popping her on the face with an elbow and knocking her over and stuff. So I don't know, you know, without looking specifically at her and kind of seeing exactly what she's got going on, I--we'd just be really conservative, I would definitely work with her doc, if she's got a physical therapist she's working with and get some really clear picture about, you know, does she have any infiltration into



the discs, do they recommend any type of specific, you know, conservatism in what you're doing and kind of, you know, maybe shoot them a perspective protocol.

You know, maybe dumbbell front squats and pushing a prowler and maybe you need to include a video link on what that is so that they know what the hell it is and all that but I would definitely work tightly the doc and make sure you're cool on that because it's a no joke condition.

Greg: Yeah. I have nothing useful to contribute to that, but that sounded good though. Good advice.

Robb: I don't know that I had anything useful to contribute but that's what I've got, so.

Greg: Cool.

Robb: All right. So we had several technical difficulties, we didn't know that we are actually doing this particular podcast early as **[laughter]** and then or I grabbed the wrong one, this one's actually my bad. So, I can't hang Greg on that and I'm super sleep deprived but hopefully everybody enjoys it.

Greg: Yeah, I think it was fantastic.

Robb: Well, it's almost done. That's the main point.

Greg: Yes, you know what the kind of podcast are? The finished ones.

Robb: The finish ones, indeed. And with that, thanks man. Thanks for everything. Congrats on wrapping up the book, we'll keep people posted on some potential give away type things that we have brewing you're your book and we'll catch everybody back here on some future Tuesday.

Greg: All right. Well, all the best to Mrs. Bob and Baby Bob.

Robb: Right on then. All right G, take care man.

Greg: See you.

Robb: Okay. Bye.

**[0:54:58] End of Audio**