

Paleo Solution - 324

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Robb Wolf: Hey, folks. Six listeners can't be wrong. It's another edition of The PaleoSolution Podcast. I am incredibly excited today. This is like Christmas coming early. I'm talking today with Luis Villasenor, the founder of the Ketogains Program and someone that I have followed for years and I've just learned an incredible amount about ketogenic diets and performance nutrition.

Luis, how are you doing, man?

Luis Villasenor: Hey, Wolf. Incredible. Thanks for having me here. It's a great honor for me.

Robb Wolf: Well thanks. I told my wife today. She's like so who's on the program today and I'm like oh, just somebody I've followed for like 10 years.

Luis Villasenor: Wow. Incredible.

Robb Wolf: And then creeping him forever. So yeah, man, I am just incredibly excited to chat with you. So you've been on essentially a ketogenic diet for almost 14 years now. Could you give folks some of that background and how a ketogenic diet got on your radar and why you've used that for both your kind of methodology for performance nutrition. And then what inspired you to develop this whole ketogains program which I don't know folks have checked out either the Reddit, your website, or the ketogains Facebook pages but the transformations that you guys have achieved are just jaw dropping. They're totally amazing.

Luis Villasenor: Thanks for that, Robb. Frankly, let's say that I stumbled on a ketogenic diet by accident. When I was a teen, I was the typical fat guy in school so what happened is that I started strength training. I started doing some exercise because I wanted to change my health and my appearance of course. I started researching back then on various protocols what did the bodybuilders use to get cut for training to get that ripped physique. I managed to drop some weight on my own by dieting, etc. I ended up let's say an anorexic during college.

Robb Wolf: Okay. Wow.

Luis Villasenor: Yeah, I managed to drop a lot of weight. I ended up weighing about 48 kilos. I'm 167 cm which is 5 foot 6. So you can guess that a 48 kilos frame on someone with that height is like well not very healthy, right?

Robb Wolf: Right.

Luis Villasenor: So I hit rock bottom and then started reading again on what I had to do like to improve my relationship with food. So I stumbled up on ketogenic diet, you know the book by Lyle McDonald? And it started ringing into me something about what he had wrote how you can control food and not the other way around. So when I started eating that way, I did a classic CKD, which is the carb loading protocol because when you start reading that book, you want to gain muscles. So the classic book still has some of the ideas that you need carbs to gain muscle.

And I started doing it as it was laid out and over time I found out that I really didn't like the carb loading that didn't feel right in me. So I started spacing it more and more and over time I realized that I really didn't need it. I was gaining enough muscle without carb loading. I felt better. I looked better without actually loading. Well I kept on doing what I was doing and getting great results and people didn't really know what I was doing so they started asking me questions. They started asking me for research, etc., etc. and then I realized that I didn't have much information so I started doing that research on my own and that's how the ketogains forum become to be.

Robb Wolf: Wow. Really interesting kind of parallel experience. I followed some of Lyle's work. And then also there was a book around the early 2000s so it was pretty popular, natural hormonal enhancement which recommend a kind of a phase shift type diet. I loved all of it except for the days where I ate carbs.

Luis Villasenor: Exactly. That's exactly my experience.

Robb Wolf: Yeah. So it's just fascinating that you had the insight to actually follow your instinct. I was a bit stuck in following the letter, the law at that point. Although I did notice that I would push that carb feedings out further and further. It was going more like 12 and 15 days and I started to do them between right after a hard training session and stuff like that and it seemed to mitigate some of the negative effects like the foggy headedness and then the problems with mental clarity the following day and general energy level.

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Luis Villasenor:

Exactly. What happened to me basically was that at first, the diet sounds very appealing and it's almost like a marketing gimmick in the sense that most people who would do the diet want to lose weight or want to eat the cake and have it too. So in paper it looks great because basically you're telling people that I can cheat over the weekends and eat really whatever and then sort of train hard and have a healthy lifestyle during the weekdays and it will all work out in the end.

But if you really read between the lines, it really is not that way. You can eat for example on a classic well laid out cyclical ketogenic diet, you cannot or should not be eating pizza, ice cream and all the things that people actually want to eat because the carb load protocol is very low in fat. So you are really stuck in a diet of sweet potatoes without nothing else, maybe some pasta but as I said without much fat.

So it's not so appealing in the end and that's what happened to me. At first I was eating whatever then I was not really seeing the results I wanted. When I started doing the diet as it should be, it was not appealing as it was on paper as I said before. So I started just eating like more of a whole food approach and that's what really worked for me and that's how I have been actually been eating for the last 14 years.

Robb Wolf:

So Luis, you take a very detailed approach to this whole process like your calorie calculation app that you have on your website is really amazing. I think it's one of the best that's available anywhere whether its keto oriented or otherwise. There are a lot of people in let's say the keto scene that feel like calories just really don't matter. I do feel like and this is a feeling. It's not a scientific perspective but I do feel like eating ketotic or low carbs seems to buy me a lot more window, a lot more latitude in my caloric intake relative to my body composition.

But you also seemed to take a very detailed oriented approach to the macros and the total caloric intake. What's kind of the give and take on that? I feel like controlling insulin levels via ketogenic diet definitely has some benefits that go above and beyond just the macronutrients and the caloric intake but then you also do take a very detail oriented approach. What are your thoughts on those two kind of competing ideas?

Luis Villasenor:

Here's how I explain it to people because both ideas can coexist and this is how you make things happen. First, I'm not a nutritionist. I didn't study nutrition and basically because I'm from Mexico. I live in Mexico and my family's has been very oriented into business and entrepreneurship. So the main reason I didn't study nutrition, even though I've always been passionate about it is, because I thought it was not a deal and that's very

stupid of me to say. I was not going to make a great living by doing that. So I studied marketing and I studied business administration and I do have a business administration mindset. So I live by this saying that goes like that which is not measured cannot be managed.

So I often talk in [Indiscernible] and I tell my clients and people that follow me that you would not open a business without taking in account expenses, profit, costs everything, right? So why are you going to be just winging it in regards to your diet when you have a clear cut objective? So the best way to reach your objective is to actually at least be aware of what you're putting into your body.

Most people are not aware about on how many calories or energy or whatever you want to call it. For example 100 grams of chicken has or 100 grams of peanuts or 100 grams of broccoli. When you do that exercise with some people, it's like an eye opener. People are for example overeating on peanuts or nuts because they think those are ketotic foods. But they are overshooting probably their energy needs with a handful and then they are wondering why they are not losing weight. So what happens yes, is that especially when people are very overweight and are very leptin resistant and the usual deals, when they start a ketogenic diet, they will or most of them will normally eat probably below their energy requirements and over time will lose weight and they will satiated and they will stay in a diet that is easier for them.

Robb Wolf:

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Luis Villasenor:

Right.

But as we say in the ketogains group, this works until it doesn't. There will come a time when they will not be losing any more weight and this is a great approach for those who seek sustainability. But there are some people that really want to get a six pack or they want to look toned and or defined or they want to get an athletic body and this is something that you will not get just by eating when you're hungry. You have certain objectives and you have to work for them or in other cases there are people that on the contrary get full very easily, get satiated very easily with this kind of diet but this also won't work if you want to gain muscle because muscle is gained primarily by how much protein you eat. And this is not-- It doesn't have to be a big deal because people are very quick to draw out that high protein is counterproductive for a ketogenic diet and that high protein will draw you out of ketosis. But you say high protein without actually looking at what is high protein and what is low protein or what is adequate protein.

For example in ketogains, we don't go really high protein. We just go adequate protein which is about 0.8 up to 1 gram of protein per lean pound of your weight so it's actually not very much.

Robb Wolf: That's maybe as little as half of what you would see in some of the high carb, high protein bodybuilding protocols.

Luis Villasenor: Exactly. So the thing is that people-- There's another misconception that people or see in number for example. They see 100 grams of protein then they see 20 grams of carbs and then they see 95 grams of fat and they say that's high protein. When they don't know that when you speak of percentages, the percentages are in relation to the caloric energy of each macronutrient not the actual grams. So that's another misconception that most people who has happen to know basic nutrition are very quick to draw about.

Robb Wolf: Right. Luis, you moved clearly from 48 kilograms up to a significantly heavier body weight now. You're pretty sizable now. What's your current weight and then what was kind of the process with gaining that amount of muscle mass. So there's definitely some memes out in the interwebs that one cannot gain significant amount of muscle on a ketogenic diet and I think both you and many of the folks in the ketogains community have maybe put a bit of a nail on that idea. But what's your weight now relative to what it was when you started on this process and then kind of what was the systemic process for getting there?

Luis Villasenor: Sure. Right now I'm about 73 kilos which would be about 160 pounds probably every day. What have I done is practically a bodybuilding approach with power lifting. So what some people may call power building let's say.

Robb Wolf: Right.

Luis Villasenor: In regards to nutrition, well I normally use 0.8 grams of protein per lean mass on days I rest and about 1 gram on days I train. So it comes down to about 140 or 150 grams of protein a day practically. The rest would be carbs and my carbs are practically green veggies and the rest is fat which usually comes from what is available in the food I eat probably avocados, salmon, blah, blah, blah and I use MCT or coconut oil to cook, a little bit of olive oil. That would be about it.

Robb Wolf: So you're focusing on getting the bulk of your fat from whole food sources relative to eating like chicken breast and then adding a bunch of coconut oil, butter and things like that to supplement the fat.

Luis Villasenor: Exactly.

Robb Wolf: I like that. What are maybe some of your preferred protein sources? Like I know some cuts of meat like a good rib eye is basically ketogenic as it just occurs. I think salmon is not bad fatty fish like mackerel and sardines are pretty good. What are your preferred kind of whole food keto source foods that you go to? Clearly avocados are a big win in that regard.

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Luis Villasenor: Yeah. I'm going to be like-- I'm very boring in regards to what I eat. I normally probably eat out about once or twice a week at most. But probably my usual staple foods are eggs. I'll have 3 to 4 eggs a day, probably half an avocado. I'll have chicken breast. I don't eat-- Most people think on a ketogenic diet, I'll eat the thighs and everything else. I'll just eat the lean meat of chicken.

Robb Wolf: Interesting. Really? Okay.

Luis Villasenor: Yeah. Why? Because I want to maintain a low body fat percentage all year long. I hover between 10 up to 12 and I cycle between those numbers and I'm a firm believer. I don't know if you're familiar with Dr. Phinney and Volek. There's also some misunderstanding on their approach is ketogenic diet. Just recently they've been trying to clarify that a high fat part of a ketogenic diet, it's context dependent. So it basically depends on your goals. If you're a high-end athlete then you need a lot of energy, probably your diet is going to be 65, 70% fat. But if you have a goal of lowering your body fat or if you already have the high fat in your body, in your thighs, well you have to ingest less dietary fat. So that's basically because I'm a little bit OCD, the best way I can control the actual fat I'm eating is to have it separately.

Robb Wolf: Oh, okay.

Luis Villasenor: It doesn't mean that I don't eat fat. It's just that probably I prefer on some cases to eat lean meats and then add the fat separately. I'll have olive oil. I'll have coconut oil. I'll have ghee on the side and I'll mix that probably cook my meals with that but I won't have the fat in the meal when I can separate it. I don't know if you got the idea.

Robb Wolf: Yeah, absolutely. I mean chicken breast and avocado. There's a little bit a variability in the macronutrient profile but not nearly as much as okay I'm eating a chicken thigh, am I eating the skin or not eating the skin and there's probably going to be a much greater variation in the caloric content there. That's makes sense.

Luis Villasenor: And that's practically because like I said I'm a little bit OCD when it comes to macro. So the best way I can be in control of that is as much as consistent as I can and that is why trying to eat the same foods every day and getting the food closer to the main macro is.

Robb Wolf: Right. That makes sense. That totally makes sense. So you do offer a ton of information on targeted ketogenic diet, cyclic ketogenic diet. Could you go through some of these other iterations and maybe who might be appropriate for playing with these different options?

Luis Villasenor: Sure. The classic cyclical ketogenic diet is the one we were talking about at the beginning of the interview which is basically the most popular version of ketogenic diet for bodybuilders. So what this diet states that one should be doing a carb depletion which basically means 5 to 6 or even 8 days without carbs or very minimal carbs as so deplete muscle glycogen and enter into a fat loss phase and then once you've carb load as to increase again muscle glycogen and being able to weight train. So as I said before in paper this looks very good but it has a little bit of misconceptions in regards to-

It's basically saying that you need to carbs to train and that's a fallacy because you don't need to carbs to train. What you need to train is basically energy and energy can come from fat as well. So in regards to actually like muscle building you also don't need carbs to build muscle, you just need protein. Protein by itself is sufficient to raise insulin which will cause muscle growth because it's anabolic and also strength training of course. So you get energy from fat and you get insulin response from protein so basically you really don't need carbs. There are some cases where cyclical ketogenic diet maybe advisable and practically the only case I can suggest and I found it's required is when you are doing a photo-shoot or you are a model and you will be probably doing a contest a body building contest. Why? Because you want--

Robb Wolf: The vascularity and fullness.

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Luis Villasenor: Yeah. Probably not so much of the vascularity but yeah the fullness. You want the muscles to be super pumped because for those that are not aware and maybe hearing less what the glycogen is it's a starch that gets wrapped in your muscles. It's basically glucose, sugar that is trapped in your muscles and will be used when you need it.

So when you do a carb load and you are basically depleted, it's like doses out. Your muscle wear balloons and you inflate them so it will give you

the appearance of super bloated in a good way like full muscles. This doesn't mean that when you are doing a ketogenic diet you will be depleted all the time. That's also an illusion or a fallacy. People think that I do carb loads because they look at my pictures and they probably see me with vascularity and with full muscles and that is not due to a carb load. That's basically because I do have good sodium intake, good hydration and my body is actually is very well adapted to a ketogenic diet low in carbohydrates practically more filled probably with fatty acids and have good water retention in muscles not in the skin. So basically when a ketogenic diet with carb loads would be advisable not really for training.

Robb Wolf: Got you.

Luis Villasenor: That's my point of view and my experience with some other people in the group.

Robb Wolf: That's definitely reflects my observations both looking at what you folks had been doing and then just other folks playing with this over the years. You guys are also super detail oriented on the electrolyte intake and you just alluded to that a little bit and this is often times when people are looking for input or help from the folks in your community. Check your electrolytes seems to be one of the first things that they go to.

Luis Villasenor: Yeah and the thing is and that's also one of the reason why ketogenic diets have a bad reputation. The thing is and I've seen it like 4 or 10, 12 years, people are very quick to jump into a diet without actually doing research. So they read about a ketogenic diet and the only thing that got stuck in their minds it's a high fat diet and it's a low carb diet. So what they do is go and start eating probably high fats without actually taking in account the kinds of fats or what should be eating. They draw practically all carbohydrates and that is including green veggies and then they just shove probably some protein but not enough because also they think it's a high fat diet.

So what happens is that they don't take in account hydration and electrolytes and then probably they get much dreaded what called a keto flu which people feel practically like shit. They feel lethargic, tired, blah, blah, blah. Then probably the last 2 or 3 days they think they need carbs because they get a foggy mind and then they get back to carbs and say the diet didn't work. They lost strength. They failed horribly. The usual.

And that can be easily overtaken if you had read before and properly planned your electrolyte intake, which is basically or mostly sodium. Nowadays people eating processed food, they get more than enough

sodium because it's like put in every food. But if you go probably into a ketogenic diet which is not well formulated, you will be sodium depleted. If you start eating whole foods and probably also don't use sodium, you will probably also be sodium depleted because when you start a ketogenic diet, your kidneys dump a lot of water and of course will dump glycogen and will drop sodium so that's why you are sodium depleted. So basically that's the importance of being careful with your sodium.

When people start getting headaches, foggy mind, etc., it's very easy just to recover. Start taking some broth. That's [Indiscernible] or bullion or even I know some people are very against it but you can get some Knorr cubes. As much as people are afraid of them being GMO or whatever, it's the best way to get your sodium fast. In an emergency, you don't have to be like such a-- I don't know.

Robb Wolf: Idealist.

Luis Villasenor: Yeah, idealistic. Like nothing is going to happen if you take one cube a day or until you get the hang of the diet. Another thing we've seen is the people get afraid because they start getting cramps or they get heart palpitations and those are usually due to magnesium or potassium deficiency. So they start correlating all these symptoms where things they start feeling with heart attack or being low in sugar on everything they go and Google a ketogenic diet side effects and then you get all these symptoms and then they think they're going to die and that is something natural to the body. That's why you get so many detractors from the diet that probably have never done it or never lasted more than a week. Right?

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Robb Wolf: Luis, so like a good potassium source would actually potentially be like the no salt, the potassium chloride alternative for regular table salt. What are you recommending for magnesium supplementation?

Luis Villasenor: Practically as we said before that the ketogains approach is very much a paleo like approach towards a ketogenic diet. If you are getting daily for example an avocado, you're going to have probably an adequate amount of potassium. If you try to incorporate organ meat in your diet, you're also getting a lot of potassium. For example chicken heart or chicken liver, those are great sources of potassium as well as red meat or broth. Another source for example for magnesium would be to have spinach and broccoli once a day 150 grams is more than enough and it's not a lot of spinach in a way but it's great and ideal to prepare some eggs or as a side dish or will also give you a lot of satiety and you're getting lots of electrolytes without actually having to be buying pills.

Robb Wolf: Got you. Got you.

Luis Villasenor: Apart from that there is no harm in supplementing with magnesium. Potassium I really don't suggest people to go out and find and get an exogenous source apart from food if they are eating enough greens. For those that maybe deficient well there's always hypotonic salt.

Robb Wolf: What is that again?

Luis Villasenor: Hypotonic salt, LoSalt and the diet salt is the normal salt that is low in sodium, is basically high in potassium.

Robb Wolf: Got you. Okay. Perfect.

Luis Villasenor: I think we missed a little bit about the targeted ketogenic diet. If we can speak about it.

Robb Wolf: Right.

Luis Villasenor: Before we were talking about classic cyclical ketogenic diet, there's also a middle ground approach that is called a targeted ketogenic which is basically the one I personally do and the one I suggest to advanced trainees or people who are very let's say sports centered or doing high end sports and it's a middle ground in regards to a ketogenic diet. It's basically eat a bit of carbs around your training. Let's say intra-training carbs or pre-training carbs. But it's also not as some go and read that you have to ingest 50 grams of carbs. For example in my case, I normally eat about 5 up to 14 grams of carbs depending on what is going to be my training for the day and it's about 20 minutes before training.

Robb Wolf: Oh, wow. That's little. Wow.

Luis Villasenor: Yeah, that little and it's basically not just for-- Like I said depending on your goals. If one of your goals is probably increase muscle, probably 5 up to 10 grams is more than enough because the purpose of those carbs is just to spike a little bit insulin before training. If you are doing sports which requires lots of sprinting like soccer, tennis, judo, taekwondo, MMA, probably you can have a little bit more let's say 20 grams and also before your session. One thing that is very important is that not all carbs are suited for this protocol. What you want is high glycemic, fast absorbing carbs so basically what you're looking for is glucose or dextrose, not fructose, not fruits, no starches because those will be absorbed very slowly and what you want is primarily to raise a little bit

your insulin in this regard. Like insulin is not always bad. So you want to raise insulin. You want to raise it fast and you want to get the carbs there as far as possible.

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Robb Wolf: Something like super starch or some of the maltodextrin like the high molecular weight carbohydrates, it would not really fit into that scheme then?

Luis Villasenor: They can fit but for different sports. For example I'm more centered about power lifting, bodybuilding in general and hypertrophy. In this case probably what works best is just pure dextrose or glucose. In the case of someone who is going to be doing an endurance race, let's say a marathon, swimming, or something akin, probably super starch maybe a good approach. But those would be the main differences.

Robb Wolf: Okay. I do some old guy Brazilian jujitsu 3 to 4 days a week.

Luis Villasenor: You could probably mix both.

Robb Wolf: Mix both, okay.

Luis Villasenor: You can have a little bit of super starch because that's going to be slow releasing and then you can have just a bit let's say 5 grams before your training. We also have like we call it ketogains coffee which is basically either caffeine if you want synthetic caffeine or regular hard coffee. You mix the 5 grams of dextrose or glucose in. you can mix some creatine and then you mix MCT oil. Also if you are strength training you can mix a little bit of protein, whey protein and you get everything you need to build muscle and to have energy before your workout.

Robb Wolf: I like it. I like it. What-- You covered that. I had one other thought around the kind of jujitsu oriented stuff. So it would look something like maybe 10 to 15 grams of the super starch or the high molecular weight maltodextrin and then maybe 5 grams of the dextrose and you would do that about 20 minutes before the jujitsu session.

Luis Villasenor: Yeah probably because I think what we've seen is that about 5 to 10 grams depending on your weight and height and your frame is suitable for about 1 hour of strength training. So you could probably calculate at around that. Also in regards to what I said, people often confused the time they spent in the gym, the time actually spent lifting. So that's why some people overshoot calories or grams of whatever macronutrient. If we're speaking about 1 hour work and I said 5 grams, you're not really lifting weights 1 hour. You're probably going to be lifting weights 25

minutes at most and that's when you are not being stuck on your phone and speaking and doing whatever, right?

Robb Wolf: Right. Luis, have you played around any with ketone salts and stuff like that? You mentioned MCT oils, but have you played with ketone salts or ketone esters at all?

Luis Villasenor: Yeah. I very recently since last year to nowadays practically-- I don't know if you know this sport, sorry is called KetoCaNa?

Robb Wolf: Uh-hum.

Luis Villasenor: That's the one I've been using lately basically because it's from Patrick Arnold and I trust most of the things that he develops. He's one of the pioneers in regards to BHB. So I've been playing with it basically when I do heavy power lifting stuff. I have seen some improvements in energy both mentally and in strength levels. I'm not going to say that it's like groundbreaking stuff in regards to what I've experienced but I do feel more energized.

Robb Wolf: Got you.

Luis Villasenor: Because there's also been a lot of misunderstanding BHB and ketone esters and everything else. They've been mostly marketed as a weight loss product which they are not. They are more so fast and useable energy and alternate source of energy for example. And there's the thing that people think that when they have high ketones, they are burning fat and when you have high ketones from exogenous ketones, basically what you are doing is you're going to use those ketones instead of your own body fat as fuel.

So that's why I suggest them for people who are doing strength training or endurance training or whatever but not very much for those who just want to lose weight. They do have some hunger bloating properties that I have experienced but they're not going to make you lose weight by themselves.

Robb Wolf: Right. I completely agree and as excited as I am about a lot of these products particularly for traumatic brain injury, PTSD and a host of other issues that they may be very efficacious for it is kind of unfortunate that they've been wrapped up in a fat loss, weight loss so which is you just kind of look at the energetic inputs and if you're wanting to burn body fat you really don't want to take a supplement that is turning your bod fat, your lipolysis off. So I completely agree.

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Luis Villasenor: Exactly. They do have their use and I'm going to agree with some of the recent changes. Some of these companies that they changed how they market them because when they started advertising them, they sold them as a weight-loss product

Recently, most of them are not all have changed how they sell and they are acknowledging this fact that they are not for fat burning. They will, as I said before, probably make you less hungry and they will give you energy when you are adapting to a ketogenic diet. In that regard it has benefits.

Why I don't openly suggest them is because they're very expensive for starters. So they are not like something that most people can access. You'll probably going to get the same benefits from some of them. You used and start using coconut oil for example or a much cheaper versions of MCT oil. But for those that require lots of energy especially mental energy that's something that you can try and see if it works for you. Like I've said, personally, I'm using them when I strength-training heavy.

I've also...Well, probably you've read about this before, there's also the nootropic properties of BHB salts. I'm more intrigued about them in that regard. I've been training some product from...I don't know if you're familiar with Kraig (Indiscernible) then I'm going throw...

Robb Wolf: Yes, yeah.

Luis Villasenor: Yeah he has developed a product that is called Lucid, which is a mix of nootropic sweet, a little bit of BHB salts. It's supposedly, yeah, we used as or, well, it's being advertised as nootropic that will give you brain energy for focus and training or even hard mental work. I've been using for about two weeks and well, yeah, it gives you the focus and relatively new to the nootropic thing but I'm really liking the product so far.

Robb Wolf: That's called Lucid?

Luis Villasenor: It's called Lucid and it's, yeah, it's not cheap but it has about what you need to get started into your nootropic journey.

Robb Wolf: Okay, I'm taking a note on that right now and I'm going to check that out. Luis do you so I have like a zillion questions here.

Luis Villasenor: Sure.

Robb Wolf: Mauro Di Pasquale, who really was very influential.

Luis Villasenor: Yeah.

Robb Wolf: He actually recommended early on and I haven't talked to him in ages about it. But early on he recommended against over reliance on MCT oils because they...In his opinion they could potentially suppress endogenous lipolysis like basically pulling our body fat out to be used as energy because we kind of have to use these MCT oils preferentially because we don't really store them. What are your thoughts on that?

Luis Villasenor: Well, I haven't really got into more research adjusting that topic but it sounds very plausible. It's very much...well, we were talking about which BHB salts because your body is very much like alcohol. Your body wants to burn first some substrates, right?

Robb Wolf: Right

Luis Villasenor: So because it cannot store them, it will be burning them. So in the case if you over rely on MCT oils, your body will try to burn and use those energy sources first. Then it will leave fat a storage which is normally what happens. So for example in my case, I normally just use MCT before training. That's about it. A little bit let's say if I cook...normally, I cook with a bit of cooking oil but I don't over rely on that. Most of my fat intake will come from rice and some foods. I can say that avocado and the occasional the coconut oil or olive oil which I use to cook.

Robb Wolf: Got you, got you.

Luis Villasenor: Like and probably you saw one video of me eating spoon fulls of coconut oil. That's something I don't on a daily basis.

Robb Wolf: Right.

Robb Wolf: That's a disclaimer. That was just a bet I had with a friend and it's not that I'm incurring my coconut oil and showing spoon fulls of coconut oil every time I have, no. That doesn't happen.

[0:40:26]

Robb Wolf: Right, right okay. So Luis do you track your blood ketone levels at all?

Luis Villasenor: Not really.

Robb Wolf: Not really.

Luis Villasenor: That's also...I've done it but more or so just to really shut people off because they said that I'm not ketogenic because I eat high amounts of protein. That's not it, also in regards to some blogposts with Don about gluconeogenesis and how much protein will kick you out of ketosis. I've done it for that purpose only.

Robb Wolf: Got you.

Luis Villasenor: Eating about 180 up to 200 grams of protein in one meal and I'm still ketotic between in you know, one, two, three hours later.

Robb Wolf: Got you, okay

Luis Villasenor: Yeah but practically that's why. Here's a little bit on my thoughts on the general stance of ketogains in regards to actually using ketone strips, ketone sticks, blood testing, breathalyzer etc.

My opinion in this is coming from someone who is OCD as I said and I track everything. I prefer to track micros than actually track blood and track blood ketones and everything else, why? Because if I'm eating to less than 30 grams of net carbohydrates a day, and I'm eating my adequate grams of protein, there is no way that I'm not going to be in ketosis. Correct, that's about it.

The thing is that people over rely on the ketone strips when they don't know the whole science behind them and then they get lazy on their diet. What happens is they don't understand how they really work or what they really mean. For example the usual case is they start doing a ketogenic diet then they buy the pee sticks. They'd be purple and they're happy because they think they're burning fat. No, what happens is that they're peeing ketones because their body is not used to this new source of energy and their bodies just dumping things that they're not using yet. So that's our first scenario.

Let's say okay, they are now semi adapted. They've been doing the diet for two weeks. What happens is that you're body now starts using these ketones for fuel, right? Well what happens is if you go and pee again on the pee sticks is that it will show fewer ketones and probably even a negative. Why? Because your body is now using those ketones for fuel. It happens every time. As people get more adapted to the diet, you will dump less ketones because you're using them.

The third option then sometimes happens is that people cheat or they drink something that they should have not been drinking and then they

go and pee to see if they are still in ketosis. They seek validation and then they see that they probably have ketones. They have a positive on their urine sticks and they think, "Wow, I cheated. I'm still on ketosis. This means I can still cheat next week." No, what happens is again, as I said, your body just dumped with all the ketones because it isn't going to be using them again. So it gets into a negative loop...

Robb Wolf: Right, right

Luis Villasenor: ...of misinformation.

Robb Wolf: I like that because there are so many things that we can track these days that it's really...it begs the question what is important to track and...

Luis Villasenor: Yeah that's a layer of difficulty to the diet which by itself it's easy in a way but it's not in another like. There are some people that are going to transition very easily but there's also like lots of fears and misinformation and whatnot. So you're going to make it more complicated that it needs to be. If you follow a whole food approach to the diet, it's not going to be that hard. I'm not saying not that hard because the hardest part is practically letting go of complacency foods.

Robb Wolf: Right.

Luis Villasenor: Now people want to have like this is one bottle I have every day on the forum is people want to still have their Starbucks. People want to have their, I don't know, cream on their coffee. People want to have a protein shake but they really don't want a protein shake. They want a milk shake.

So I had a talk also with another friend the other day. He posted a great post about it. It was, "When you go for a Starbucks, you really don't want a coffee. You just want what Starbucks sells you and that it's like practically a milkshake." So when you let go of that, that's when you're really starting to going to have results because like you've changed your viewpoint on some of the things.

[0:45:14]

Robb Wolf: Right and you've changed your palate so that things that are really like eating coconut flakes actually tastes sweet instead of cardboard, yeah

Luis Villasenor: Exactly over time your palate changes a lot. It's probably some people will relate to this when they first started drinking coffee. If they started drinking it black, it was awful or people who started drinking beer for the first time, I don't know someone that was 12 or 16 or 18 years and drank their first beer, it didn't taste good and they say why do the grown-ups

drink this. Like it doesn't taste good but overtime you're getting a, this tastes better. The same happens inversely when you go out from processed foods and started eating like whole foods. It really happens. People get like amazed when they see me eating for example cucumber or just, I don't know, broccoli, whatever, and I actually like it just like that. It's not that I'm suffering and I'm like killing myself by eating like that. It's something I actually enjoy. Over time your palate changes.

Robb Wolf:

Yeah, I could not agree more and that's been so much of the appeal for me eating more this way. I'm never hungry. I don't have cognitive fade. My body composition is just much more easily maintained. I have not quite yet been able to crack the nut of having that low gear while doing Brazilian jujitsu. But I really have not tried a targeted ketogenic approach the way that you've described. I haven't tried anything like that at all.

One quick question on doing that, you do recommend an adaptation period before people try the targeted approach. How long should that adaptation period be?

Luis Villasenor:

Normally, there's not a clear-cut answer because there's a lot of factors in here. Normally, what is suggested as keto adaptation takes about four to six weeks. Well, that will be more or so like a fat adaptation. The clear-cut keto adaptation, which is more so our cellular level probably, it would be four months, even more and that's because mitochondrial density and adaptation at cellular levels.

For someone who wants to try our targeted ketogenic diet, we're not very quick to say, "Go ahead and do it." But there are some misconceptions where you could probably do it from the start and that would be with persons who are already lean in a way. Let's say someone who is between 14%, 16% body fat. Why? Basically because if you are already at that level of body fat or have been for all your life, you'll probably had a very adequate insulin sensitivity and probably don't have any problems with hormones etc.

So if you try it like I stated before with probably 5 to 10 grams of glucose, there's no harm there. There are some people who have practiced a lot of exercise and they even ingest 100 grams of carbs a day and they will very likely still be ketogenic with 100 grams of carbs a day. That's not the usual but I'm speaking about high-end athletes because they're practically depleting all their liver glycogen and as you know that's the main driver of ketosis.

Robb Wolf: Yeah, I think Peter Attia has done some pretty good documentation along that line like when he's doing an all-day bike events, pulling hills, and stuff like that. I think he was 150 to 200 grams of carbs at some points throughout the day. You know, like 4,000 or 5,000 total calories but then the bulk of the calories coming from fat, high energy output and so he was able to make that work.

Luis Villasenor: Exactly, I'd pushed it some days even to 60 grams of carbs. I tested with breathalyzer on blood keto meter and I'm still in ketosis. But as I said that's not something I normally do and even in those cases most of my carbs still come from green veggies. I'm speaking probably a little bit of. I don't know if you're familiar the way the...what is called here chayote?

Robb Wolf: Yeah absolutely.

Luis Villasenor: That's one of my staples. I normally like have five or eight in my fridge and I ate them like apples probably when I want something sweet. I boil them with stevia. I probably add some bit of peanut butter powder over there, that's like...When I want something like sweet, that's one of my indulgences which probably for someone who is not used to that will say that's crazy but look...

[0:50:22]

Robb Wolf: Right, right now...

Luis Villasenor: That's a way to have something semi-sweet or I use them as potatoes boiled with a little bit of cheese and the cream or whatever.

Robb Wolf: Nice, nice. No, I have actually knows over the years pretty frequently so that's a great idea.

Luis Villasenor: Yeah those are one of my staple and super foods because they are very high in vitamin C and mostly in potassium as well. So yeah, if you're looking something that has fiber that will fill you up that has an adequate amount of micronutrients, there's no harm in going that way.

Robb Wolf: Right, Luis...

Luis Villasenor: They are like 5 grams of carbs each.

Robb Wolf: For the whole thing, yeah. Have you done much just general blood work? Like there's definitely some chatter on the interwebs that a ketogenic diet will derange thyroid, will lower testosterone. Have you done any vetting on that or folks in the ketogains community done much looking into that?

Luis Villasenor: Sure. Well yeah I've done much...I tried to get my blood work done at least every six months. This reminds me that I actually that it's time next week to do mine. Well, yeah my cholesterol is practically in the low range. My triglycerides are now only 40 up to 60. So well, what else can I tell you? In regards to blood work, it's perfect.

Robb Wolf: Okay, and so like thyroid and testosterone and everything looks good.

Luis Villasenor: Yeah everything is perfect and like what are normally... There's, also, I'm going to tackle thyroid next but in regards to cardiovascular, it's mostly a myth that I think it should be the debunked by now. Every day we're seeing more and more of the studies and publish findings that saturated fat is really not so the enemy but more or so the combination of saturated fat and fructose or sugars or like practically irresponsible eating. Right?

Robb Wolf: Right.

Luis Villasenor: So if you follow a ketogenic diet approach with whole foods and of green veggies, I don't think this is going to be probably an issue. Also, like you said, not to over rely on MCT oils and everything else. Everything in moderation.

In regards to thyroid, that's more of a complicated issue because probably if you went back 10 or 15 years ago how the doctors actually diagnose thyroid problems? I don't know if you're well versed in that but mostly it was symptoms.

Robb Wolf: Mainly a TSH like that. Yes, symptoms and then TSH.

Luis Villasenor: First, yeah, exactly first symptoms and then they did a test. Nowadays, the first thing they will do is always do a test. So if you're asymptomatic there's really no need, that's my belief to be really concerned about it. Why? Because ketogenic diet, yes, it probably will change some of your hormones. But that's not really a negative way. Probably it has to do with efficiency and how your body works. Probably you're using fuel in a different way. It's a way of like explaining it goes like if you are wondering why your car doesn't have gas emissions when you change from using fuel or like lead fuel to electricity.

We are looking at different energy outputs and different energy intakes. So it works different in any way. We even have the whole picture now but if you're feeling great and you're feeling good and you're looking

good there's no really like really a reason to be overwhelmed because you may have low thyroid. If you're not feeling cold, if you're eating adequate calories, if you're being asymptomatic, probably that's not the issue.

What maybe the issue probably is that you are low on sodium again. That's also another issue that Dr. Phinney has been saying over and over and over again is most of the problems that people develop or symptoms when doing a ketogenic diet can be solved with a little as 2 grams of sodium a day.

Robb Wolf: Interesting, okay. Okay.

Luis Villasenor: Also about speaking about sodium, another important is iodine which people also very low one...low of. If you supplement with iodine or get adequate seafood during your week, probably, eat sardines which I'm a big fan of or mackerel or salmon depending practically on your budget, you will not have any of these issues.

[0:55:12]

Robb Wolf: Right, right, yeah. I never...although I didn't have my thyroid checked like I was ketototic, like full time from...Well again other than like the carb feedings which I kept pushing out more and more and more so that's not entirely true. But like 2001 through 2008 maybe and then my crossfit activity, I found it hard to match that volume with the ketogenic diet but I was not doing anything like a targeted ketogenic approach and then also looking back. I don't know that that volume of activity was really good for me or really anyone else. So I do know that, that was necessarily a limitation of the diet but more just probably needing to shift gears and do something a bit more reasonable on the training side. But I never had any problems with cold aversion or actually quite the opposite like I was doing cold water immersion and all that type of stuff, yeah.

Luis Villasenor: I don't have...Yeah, I think I've invited you. We also have like keto science board which is more...In fact you said somehow like dense questions. One of the topics that we'd had and we've found is that when you're doing a ketogenic diet at first, let's say people who come from a high-carb diet or a western diet and they start doing a full-blown ketogenic diet, you see the usual and this is why there's a meat that calories don't count. You see a lot of people eating a lot of calories and losing weight.

So the theory goes that this is due to energy substrate inefficiency. Your body doesn't know what to do with so much fat and because you're not ingesting carbohydrates, you start like wasting this energy away. So this why even if you are eating a little bit more or weigh more calories than

you've calculated TDEE or RMR says, you're going to be still losing body fat. It's basically a problem of wasted energy, but over time.

This is something we've found with people who had been doing ketogenic diet for over five or eight years. Your body becomes more efficient at using this energy, these calories and therefore you actually need less calories intake. This is something that was part because I recently did a BMR test for myself, and the test said that I needed about 3,600 calories just to maintain when I normally never hit that. My normal calories are about 2,000 and when I want to really lower my body fat, I do have to go very low. This is a particularity of me and this is not that I have my hormones wacked. My blood tests are perfect but this is a particularity and then I have to go probably 1,200 or 300 calories to start losing weight.

Normally, I eat about 1,800 So for someone my size, people think that that's not correct, but now that I've been talking with some very intelligent people in the Low-Carb Community, the same applies to them. It's not that your metabolism is down regulated. It's more so that your metabolism is very efficient in using your chosen energy as more efficient as possible. I'm just eating adequate borrowing to maintain both muscle and the hormones and then I'm just eating enough fat to fuel my workout or my energy needs.

This goes hand in hand with...If you saw me training, I normally train for an hour up to two hours of intense body building and power lifting. Not just lifting light weights and doing a lot of upper repetition like the usual body builders. I lift a lot of weight and people who train with me...Basically, we have a saying that we end up puking. We lift a lot of weight and we train very hard. So this will not be possible if I were not using optimally my fat intake, right?

Robb Wolf: Right.

Luis Villasenor: I'm getting catabolic and I'm now losing a lean mass on the contrary in maintaining and even gaining. Again, this is probably...your body becoming anew, mainly, your mitochondria becoming efficient towards using these substrates of energy.

Robb Wolf: This is one of these things that's so intriguing about ketogenic diets particularly when you frame it in this term of metabolic efficiency. There is potentially some really interesting anti-aging implications there.

[1:00:05]

Luis Villasenor: I'm not a very big fan of that as well. People don't believe me that I'm near 39 years. People look at me and they say, "No, I thought you were 24". "No, I'm almost...I'll be 39 in three months. This is probably why because I've been doing a ketogenic diet for almost 15 years, and I do have some comparisons. I had two brothers and I look younger than them. I am eight years older than the smallest one and he looks older than me right now. So yeah it's not just, of course, energy plays...Sorry, exercise plays a big part but I also think that the foods you eat and mainly those foods are ketotic will have a big impact. It's practically we go out again to the main point which is mitochondria.

Robb Wolf: Right, well, and when you look at the components of aging, we lose mitochondrial density and we lose muscle mass particularly the high-end type IIb motor units, where what you're doing with the power body building, you're addressing the muscle mass and particularly the power production piece and also then also the mitochondrial density is addressed via the ketogenic diet.

Do you do any low-level cardio to kind of boost the mitochondria density or for additional body composition or has that handled the 100% via diet?

Luis Villasenor: Practically, I used to do cardio after training, 20, 30, minutes probably, but it has been practically two years when I stopped doing it. My cardio is practically HIIT, high-intensity interval training. What I do is 100 up to 130 kettlebell swings before training. That's like my mantra. We always do that and that's one of the rules that people who do our training protocols. That's what we do. We don't do cardio save on some very special occasions but most people ditch the cardio in which they are doing kettlebell as warm ups. That's our main cardio let's say in a way.

Why do we do kettlebells? because for people who had never trained or not very familiar with high-intensity interval training, doing a kettlebell swings is guaranteed to make you do high-intensity interval training.

You are pushing the weight against gravity and the ball is pulling you, it's a great exercise for almost your whole body. It will get your heart pumping. It will get you breathing. People get Like it's that foolproof approach if you are doing some functional, high-intensity interval training. Because when you say with someone, "Oh, I'm doing 40-minutes of HIIT". What? How can you be doing 40 minutes of HIIT? Are you here training for the Olympics or are you Superman? No one can do 40 minutes of steady HIIT, right?

Robb Wolf: Right

Luis Villasenor: It's probably the sure fire way I've found for myself and for people who are following our programs to do, to actually do HIIT. It doesn't matter if you are 200 pounds, overweight or if you are at your goal weight, or you have 5% body fat, or 40%. Everybody is going to be challenging themselves in a way.

Robb Wolf: Right, I like it. Luis, did you guys just have like a ketogain summit or seminar there in Mexico City?

Luis Villasenor: Yeah, we had one. Our first one was actually at the beginning of the year in Atlanta. We had one about a, yeah, almost two months ago here in Mexico. We're having another one on the 7th of July in Atlanta as well.

Robb Wolf: Okay is that one sold out?

Luis Villasenor: No we're just finishing the details as we speak, and we'll be announcing it in the following weeks. So, yeah, we're doing another seminar and the idea is to be doing more each year because we've seen a lot of great responses of people, lots of people from all over the country. United States and Mexico came to both seminars and it's like a ground breaking process especially in the mindset that people think that you can only do a ketogenic diet to lose weight or to treats with therapeutic issues and needs something that you should not be doing for a long term or for overall health. We're trying to break out some of their myths, regarding ketogenic diet.

It's also not so ketogenic diet centered. We also applied it to general dieting principles a little bit of psychology , how to maintain and create healthy habits.

Robb Wolf: Nice, fantastic. Well I am supposed to get out to Atlanta here pretty soon for some business stuff, so I'm going to see if I can dovetail that in your next seminar. Is there a link for that, that's available right now?

[1:05:14]

Luis Villasenor: Not now but I'll get you the link, yeah, in the following week.

Robb Wolf: Okay great, great because I think this goes up and not next week but two weeks from now. So that's great, okay well. I want to be respectful of your time instead of making this 4-hour podcast. Why don't we chop it here at an hour and then maybe we'll get you back on in a couple of months. Luis let folk know where they can track you down on the interwebs.

Luis Villasenor: Sure, basically, our main site is ketogains.com. We are also very active or more active nowadays in Facebook. We have both private group and of the fan page also ketogains. You can look us up or whatever there. On Reddit as well, Instagram, everything in the web that says ketogains is done by us.

Also, if you want to join or I suggest you to join the Facebook group. It's a closed group just for the reason because lots of people post product pictures of them losing weight, and whatever. So people asked us to maintain the group closed. It doesn't mean that you won't be able to enter. Just ask for request then you will be practically immediately available to join. But that's the reason why it's a closed group, because we are very conscious on privacies of people who are in the group.

Robb Wolf: Right and I've been a member of that group for quite some time. It's very supportive, a really, really good group of folks. You don't see a lot of the shenanigans that you see on many other Facebook groups so it's a fantastic group.

Luis Villasenor: It's basically that's because we tried to be even though it's Facebook and everything, we try to be as more science-based as possible. Everything that we have a huge FAQ, frequently asked question wiki which is basically one of the reasons why I created ketogains because I got a little bit tired of answering the questions over and over.

Robb Wolf: Again and again. [laughs] Yup.

Luis Villasenor: But it's also what brought me up here because like it made me go on research more and more and more and every time I find a new study or find something worthwhile, I will add it to the FAQ. So it's always a work in progress. So again the reasons why ketogains was made, it's a science-based group. You will never see or we will try to push you a little bit more into giving high effort answers and do backing your claims. We are not the typical keto group when we say, "Eat more fat." or "Eat more butter." No, everything that we suggest is based on one word and the word is context. We are not proponents of high protein or we are proponents of low fat or high fat or whatever. We are proponents of eating the required micronutrients for your personal goals and your personal context.

What will happen is very likely, the micro recommendations will put you in the state of ketosis, probably for those who want to lose weight or those who are seeking for any kind of probably cognitive or health improvements. That does not mean that a ketogenic diet is the be and eat all of all diets or it's an optimal diet for you. There are, of course, in

many cases where ketogenic diet may not be optimal or probably you don't like eating ketogenic diet foods, right? So that's something we are very clear about. We do not push a ketogenic diet. If you're to do a ketogenic diet, it's probably because you have a set goal or a choice.

Robb Wolf: I love it. I love it. Context is everything and it's hard to find that because context means you're talking about new ones and not new ones means that you need to be able to actually make some rational decisions about cost benefits.

Luis Villasenor: Exactly. You have to read between the lines and that's one of the things I really don't like about. Most Facebook groups especially those on low carb or practically you can say any group that is related to diet. People ask a question without actually saying how much they weigh their body fat percentage, their goals and they ask, "Can I do this or can I do that" whenever stating their goals on their body composition. And you see lots of people giving advice when they don't even know what the original poser wants.

Robb Wolf: Right, right. I confuse a lot of people because they'll ask me a question and then I will always say, "Who are you, and what are you trying to do?"

Luis Villasenor: Exactly, oh yeah. People get mad at me because I use the Socratic method. I try not to give clear-cut answers and I try to make people think because for me, I don't do this just for because for a living. I do this because I want people to learn and I want people to be successful without me. So practically, like they say, "Teach a man to fish and he will be fed forever," or however the saying goes or "Give him a fish and you will feed him for a day."

Robb Wolf: I love it. I guess that's why out of so many of the ketogenic groups out there, I gravitated towards what you were doing and what your community is doing and really found a community that I just really enjoyed and jived with right from the outset. So I'm just ,oh man, I'm so stoked that you could be on the show. I will get links to all the Reddit pages, the Facebook pages, then in ketogains website and then definitely shoot me a link to your next seminar and we'll get that up in the show notes.

Luis Villasenor: Thanks a lot for having me Robb.

Robb Wolf: Oh huge honor to have you on the show and I look forward to meeting you at Atlanta.

Luis Villasenor: It will be incredible to have you there.

Robb Wolf: Of course, I will bring down property values any way I can. I'm super excited. Well, Luis take care and thank you again and I'll talk to you soon.

Luis Villasenor: See you Robb. Let me know when the interview is live.

Robb Wolf: I will do it.

Luis Villasenor: Okay bye-bye. Thank

[1:11:27] End of Audio