Nicki: Hey.

<u>Robb:</u> Feels like we were just here, but you look so different.

Nicki: It's like Groundhog's Day.

Robb: It is.

Nicki: I'm still wearing my podcasting socks.

Robb: Nice, they're very warm.

Nicki: They are, it's not the point. Already. We don't really have an intro.

Robb: Who needs intro these days?

Nicki: Jumping right in. Okay, so we have a question from Rich on Polailo and Kids

care. Robb, two questions for you is Palailo a new term from your book wired to eat or did someone make a huge error? I guess there is a typo in the book.

Robb: Apparently there's a typo in the book I will put out there that it appears at the

other 106,000 words were more or less correct. So.

Nicki: Okay. So as question, what is your thought on kids care such as chiropractic

treatment, massage, acupuncture, et Cetera, when there are no obvious signs of issues but more for general maintenance as they're always throwing themselves around? My kids are four and seven, much like ours are four and almost seven,

always throwing themselves around.

Robb: Oh. And he said, don't let spelling slow you down. It definitely won't because

Richie left out an S and the punctuation was horrible on this, so thanks. I mean neither of our kids have had chiropractic. I know some people are super geeked on it and they wanna do chiropractic adjustment right after the kid has come out of the birth canal, we were debating about even running this one, I don't

know that I see-

Nicki: We have chiropractor friends that have adjusted their kids from day one and-

<u>Robb:</u> Literally day one.

Nicki: And we haven't but I mean I think it's really what speaks to you, if you feel

strongly that the chiropractic care helps you and massage helps you and acupuncture helps you then and you want your kids to have that as well. I think that it's an individual thing. And then we have also have friends whose kids get

massages pretty regularly and it kinda just depends on your kids-

Robb: We have taught our kids if they have a little bit of funky belly, I have shown

them some kind of tummy massage type stuff, I've been working on teaching both the girls some breathing techniques when they're upset or particularly if they get hurt, like a crash your bike and skin their knee, trying to do the four seconds in through the nose, hold eight seconds out through the mouth and it gotta say, [Sain 00:03:28] is really good at leaving even though she's four, she'll be crying, and I'm like, "Hey, let's do our breathing." And man, three breaths and she's cool. Zoe's a little harder to reign in, like she does it, but it's a little harder to get her to kinda reign it in. So I mean we do some stuff like that, but I can't say that we've really ventured into these other areas.

Robb:

I know some people are super polarized one way or the other on this stuff. For me Chiropractic, I've definitely had huge benefit with things like twisted ribs and whatnot from doing Jiu Jitsu. I look at it as physical medicine that can be really efficacious. I think some of it gets kind of Wu, like I won't go into that too much as to what the Wu is, but there's some of it that I think is a little out there, Kairos tend to be much better steeped in nutrition and lifestyle change and actually advocate for it and have generally been much more open and welcoming to Paleo ancestral health low carb concepts. So, in particular words I would actually say that natural paths in particular tend to be very kind of steeped in this Vegan scene because all the schools are kinda pro Vegan.

Robb:

Not all of them are, but a lot of them are like the ones that aren't are kind of bucking the trend. Whereas like a little more consistency like finding low carb Keto, Paleo recommendations out of the chiropractor scene is pretty consistent, which is totally far field from what the original question was around kids care. I mean around kid care, we try to get our kids into bed pretty early. We tried to feed them better more days than night, try to keep them active, we consciously works and not over schedule them. So they do one martial arts class a week and that class time got changed.

Robb:

So technically they do no martial arts classes a week currently but each day when they get home we tried to get them outside, and riding their bikes or playing in the snow or something like that so yeah, I feel like that's super important stuff. And then beyond that we haven't really done a whole lot which is a long meandering question at the end of it and probably doesn't provide much in the way of substance, but that's true of this whole thing. Yeah, we'll move on.

Nicki:

All right. Our second question is from Ed and he says, "Hey Rob, I have a question regarding NMN nicotinamide riboside NAD+ et cetera. I've read and listened to several peaks like Peter Attia and guests like Davidson Sinclair from Harvard who taught the health benefits of NMN and NR, for those who've of us who want to stay young, this is all fine and dandy. I mean the number of people taking true Neagain is outstanding me included.

Nicki:

Then Chris Master John, who I love indicated on one of his podcasts that we should be careful taking NR and the like as it affects methylation, a bad thing I think, but the possible suggestion of having to take an exogenous form of glycine to balance the negative effect of taking large doses of NMN and NR product's. Been listening to you for years and always remember you getting a bit pissed off that your listeners wouldn't do some research for themselves with forced submitting vocational questions. Well, I've tried to read and listen to everything there is and I can't clear the wheat from the chaff. Maybe you can do a video or talk about this subject on your podcast."

Robb:

Well Ed, you did awesome due diligence on this and honestly, if anything what this illustrates, I would tend to lean towards all things nutrition kind of out of the Chris Master John Camp like that, that guy just stitches things together in such an amazing way, his recent work looking at a MTFR, geans and a methylation and in particular looking at not right beside riboflavin as being kind of the critical linchpin element requiring three to five milligrams per day ideally getting the bulk of the riboflavin from dietary sources like a liver. But a couple of thoughts here, I think that the notion I'm in backup, when we look at things like key to genic diets and fasting, they tend to emulate a lot of what the benefits of this nicotine and [inaudible 00:08:08] story is we tend to shift metabolism towards a profile that looks more like that story.

Robb:

Supplementing our way there I think is very problematic as I think Chris points out and then similarly the kind of snout to tail well managed nutrition that Chris recommends largely addresses these issues. Like if you're doing more than just muscle meat, you're getting that glazing balance and you're also getting the micro nutrients like Riboflavin. And so things just kinda play out in the wash, so I think that this is where I'm getting really a micro scale on this stuff can be problematic. I think when people are looking both for health and the longevity story, like people like Michael Rose, Art Devani that look at a very macro level. I feel like they actually have more to provide often times in these folks who were super down in the weeds looking at autophagy and all that stuff.

Robb:

All that stuff's great and it's good to have a steeping in that but then we have to kinda pull the focus back and just say, okay, well what did we get clinically? Like if people do something that gives them better energy levels and better sleep, better performance in general, that is going to mean good things going forward. And so I don't know if that 100% answers the question, but I definitely lean towards the notion that inappropriate glycaemic glowed leaning towards a key to genic diet. I know Chris isn't a huge fan of Ketogenetic diets other than some more specific conditions. But if we look at just kind of the blood glucose response and match blood glucose response appropriate to our glycaemic load so straight out of like the 70 carb test is as part of wired to eat, I think that really good things come out of that.

Robb:

And then also keeping an eye on proper nutrition that's kind of a snout to tail orientation. Like we just at a macro level, we end up covering so much ground we get so much good work done, this is maybe a little bit of a field point, but we've been working cross side top it at Ju Jitsu and there's lots of different ways to do it. But the cross side top that I've learned from Henry Akins, there's always a way of dealing with things. But this one method that he uses addresses so many things simultaneously that it kind of funnels people into a scenario where they only have a very limited number of options. And if you know what those options are, then you can respond to those and almost have a little bit of a game plan. Okay. If they do this, then I'll do that, and similarly if we're handling our nutrition on a macro level, we don't need to get in and manage the micro details as much because they're just implicitly addressed.

Nicki:

Okay. So our next question is from Kyle about doctor Gundry and the plant paradox. Kyle says, "I am so curious what your thoughts are on this book in general and more. Doctor Gundry's theory that we should eat around 22 grams of protein Max per day and essentially around 60% carbs. Seems like a brilliant book full of testimonies, but his theories on animal product enzymes and heart

health, it seemed to be a little off to me, but I'm no expert by the way. I'm a huge fan of your work. It has impacted my life immensely. I am the COO for a company called The Perfect Workout. I believe we both friends with Lawrence, Neil, blah, blah blah. Anyway thanks for the opportunity."

Robb:

So yeah, "The Plant Paradox" is a cool book in some regards, It raises some questions around lectins in plants. And in the previous podcast we had some question and commentary around folks and not actually doing all that well with-

Nicki:

Leafy Greens and stuff.

Robb:

Leafy greens and stuff [crosstalk 00:12:00] you know and so that's dealing more, I would say with fiber, although it can be some of these plant derived toxicants that for some people offer a hormetic stress benefit and for other people and may actually be problematic recommending 22 grams of protein Max per day for anyone that is taller than three feet tall, it will even children need more than, this is so ridiculous to me. Like that is not even a snack size protein allotment to get some mTOR activity to get some of the benefits of branch chain amino acids in a single meal.

Robb:

You need about 25 grams of protein and this will vary from size of person and what not. But I think that there's so much fear around this miss misnomer around cardiovascular disease, mTOR activation, inflammation I just couldn't disagree more. And then as to the 60% carbs, I think that just depends, some people are real carb tolerant, some people are really not carb tolerance and so you kind of have to play your federal based off of that. But again I would really hang my hat on the approximately 0.8 to 1.0 grams of protein per pound of lean body mass, for me that equates to about 150 grams protein a day.

Robb:

I tend to go a little slightly on the heavier side of that. You're about 120 130 grams and we both motor along really well with that not to say that anecdotal pieces super compelling, but the literature on effective aging as we get older the case is made that we should potentially be like as high as 1.2, 1.4 grams of protein per pound of lean body mass. Because we tend to get a blunted anabolic response from protein, we tend to have a lower ability to digest protein so there's an argument we should be eating more as we age not less.

Nicki:

Doesn't [inaudible 00:14:03] say something like, "If you lose 40 percent of your lean body mass your dead."

Robb:

Your dead Yeah. And diabetes becomes fatal, It for a lot of reasons, but in part because of the wasting disease component, the difference between HIV and AIDS to some degree is this reality that AIDS is the initiation of a really gnarly wasting process and aging is a wasting process. But the interesting caveat to that is that non westernized populations don't age the way that we do. And there's dietary factors, lifestyle factors, social factors but one of the things that we can do to, I would argue age more effectively is to eat more protein. And that doesn't mean that you need six meals a day with 50 grams of protein each time, unless you're like wanting to be a competitive power lifter or bodybuilder or something like that. And even then, that may not be a necessary so even for a strength athlete, you don't necessarily need to have protein all the time.

Robb:

You don't always need em tore turned on all the time. But you need some cyclical elements to that. And I think that that's really the important piece that when I was trying to remember a 10 and two topic and one of the 10 and two topics that I wanted to hit is that it's not so much worrying about the absolute magnitude of protein that you have. But we want some amount of on and off and we wanna cycle between those things and again, [Hat tip 00:15:41] he just, it a very instinctive level but also backing this up with his understanding of complex systems theory and stochastic processes. He has been a living example of this for a very long time and I think emulates this process where you don't need to be overfed but you certainly don't want to be under fed and you wanna lift some weights and has produced a really effective kind of outcome with that.

Nicki:

Okay. Let's see. Our next question is on extended fasting and muscle loss from Keith. He says, "Rob, how are you coming on your piece regarding fasting and tore and aging strategies? I asked because I'm at a point in my health journey where I've lost the ugly weight, refocused on gaining muscle mass and would now like to shed a little bit more fat to reveal the fruits of my labor, To do so I've been planning on getting back to a strict Ketogenic lifestyle including a moderately aggressive fasting regimen. This is the same strategy I implemented during my initial 70 pound eight month weight loss that was largely inspired by the work of Jason Fung. I know you don't necessarily agree with doctor Fung's opinions on fasting being a largely muscle sparing venture, which is why I've been lurking in anticipation of your work on this topic and my journey from 230 pounds to 160 pounds.

Nicki:

I took part in daily intermittent fast, frequent 36 hour fast and several fast of 70 to 100 hours in duration. Based on this experience, I didn't encounter any noticeable effect on my strength or visible musculature even as I got down to a modest body fat percentage in the mid teens. With that being said, I'm very interested in the specifics of your views on extended fasting as a potential tool for cutting fat while preserving muscle specifically as it would relate to hypertrophy focused resistance training goals, a discussion between you and Dr.Fung on this topic would make for one incredibly interesting podcasts. Thanks for your time and for all of your continued work. Your ability to interpret and convey complex topics is unsurpassed in this filed."

Robb:

Well thank you. That's very kind. So I've noodled for what like five years. I've had a file on like a long javity book and because I was foolish enough to write both the Keto masterclass book and the Sustainability book with Diana Rogers at the same time, I kind of freaked out and put most of the launch of the stuff that I think matters in the Keto masterclass book. There's still some other stuff that wasn't really germane to that topic, but I ended up talking a lot about em tour and these pluses and minuses. And in the previous question I kind of alluded to some of the stuff. Keith, I think a key thing to take away from this, and I'm inferring this from the way that you worded this stuff, but it sounds like you were doing resistance training during your fasted state and that was a common feature throughout this whole story and I would make the case that to the degree you maintained both muscle mass and strength during fasting, it had nothing to do with fasting and everything to do with the fact that you were strength training.

Robb:

There's some great studies that suggest that a strength training, particularly daily strength training full body doesn't have to be a ton of work, but a decent

amount of resistance will really forced all the lion's share of the tendency to lose muscle mass. Doctor Fung is a great dude, he's very smart. he's made some great contributions to the scene, but I think he's also been kind of fast and loose with it and it hasn't really dug into some of the details in the literature. I think fasting is a great tool. It can be a fantastic modality, but again, if one is looking at that as ultimately a body composition and point as the goal, then the strength training, the resistance training has to be a key feature to that. So what we're introducing in that scenario then is very significant calorie restriction of nef pulse of anabolic stimulus from strength training that we're not totally losing, hopefully a ton of muscle mass.

Robb:

And the fact that a strength levels were largely maintained as evidenced by your statement there then that's probably a pretty good thing. Some of my challenge with fasting as kind of the primary modality for people lose weight and doesn't sound like this applies to you, but fasting is the absence of eating and at some point that must stop and then you need to eat again. And if we haven't created sound habits, whether it's high carb, whether it's low carb, whether it's Vegan, whatever the hell it is, if we have an established some sound principles there, then people tend to default to their old habits. Yeah, and they tend to go back to overeating. And again, I'm not saying that's the case with you, but this has been my observation around fasting. The recent low carb Denver, I've had nervousness also around fasting to some degree in that this is tough.

Robb:

On the one hand and we as a society are definitely overfed and we eat too much and we eat too frequently. So we should experience some degree of fasting that would help balance that stuff like turning [inaudible 00:20:56] all that type of stuff. The flip side of this though, and there was a doctor and oncologist, and I'm blanking on her name now, but I've had some nervousness around really aggressive fasting because part of the goal within this story is autophagy, cellular turnover, stimulating apoptosis and abnormal cells but the thing is that what constitutes abnormal, It's a range, it's not a binary point. And so she made the case that overly aggressive fasting will burn through the stem cell pool and that you will end up dying early. And this has been established in animals where they fat, they intermittent fast these animals and they end up with organ failure because of the Hayflick limit, it's a term that describes the notion that in general mammalian cells can replicate about 50 times.

Robb:

Each time they replicate, they lose a little bit of the telomeres and once the telomeres are gone to cells don't really replicate anymore they become senescent and they're done. And if you burn through all your stem cell pool, you don't have anything left to replace that. So the balance in my mind that we're trying to strike in this case, if we're looking at a longevity play as you want sales to actually hang out as long as they can, so long as they're healthy, then once they get into that unhealthy state, which again is a spectrum, not a binary point, then we kick them over the edge with some sort of autophagic process, lifting weights, coffee, some degree of intermittent fasting or time restricted feeding. Peter Attia makes the case that human metabolisms is much slower than animal metabolism so we may need some longer periods of fasting to be able to get the same type of benefits that animals do.

Robb:

So maybe autophagy and exercise don't quite work exactly the same in humans. I think we still need to figure some of that stuff out, but we do know that exercise and just simply not overeating is a net win. Like people tend to live

really well and fairly long lives in that story. So you know whether or not you should do a fasting regimen. Again, I think that some sort of a time restricted feeding like eat breakfast eight or nine and wrap up dinner at four or five like that seems totally reasonable, maybe once a month you do a workout on a Saturday morning and you fast until Monday morning. And in between those couple of days you do a couple of other strength training sessions to maintain muscle mass. But I still just kind of default to like find a good eating regimen that you can more or less run the rest of your life with like focus on that as a baseline because people are reasonably successful at losing weight. They're just more successful at regaining weight.

Robb:

And the real challenge there is finding something that is sustainable over a lifetime and I just don't know if the ping pong game back and forth between weight gain and fasting is really doing folks any type of benefits, maybe it's better than just gaining weight spiraling out of control. But this is one thing that Layne Norton made a case on the Joe Rogan podcast, which was said, "when people lose weight and regain weight, when they go to lose weight the next time it is significantly harder." We had a question around metabolic set point in the last podcast and it appears at that metabolic set point kind of ingrains harder because the body is kind of like, fuck that we're in scarcity is kind of the thing that we're the most concerned about.

Robb:

And so it's almost like a digs the metabolic heels and to make the process harder to lose weight subsequently. So the point there is that I would just focus on what is going to be longterm sustainable and I've just seen so much success with some sort of a Keto gains type approach, lift weights three to four days a week, be generally active, introduce a mile caloric deficit. If somebody really wants to do goose, fat loss and maintain a body composition. I think a protein sparing modified task PSMF is incredibly powerful. It's working via different mechanisms than a straight up fast with regards to protein intake. But I would argue that it's better for a body recomposition perspective. So man, I don't know that I've got a really specific concrete answer out of this other than I would encourage you to just noodle on what is the thing that you can do that is going to be long term sustainable like over decades and use some iteration of that as your home base, your core and then kind of iterate from there.

Nicki:

Okay. Let's see. Our next question is from Rob, on too high of key tones. Rob says, "Hi Robb and Nicki, I've been really enjoying this Q and A podcast format. I have a question I'd like to hear your thoughts on regarding Blood Beta hydroxybutyrate testing. I've been hearing many people in the field saying that the more fat Keto adapted you are, the lower your blood BHB tends to be due to increased metabolic efficiency. Personally, I've been doing Keto for many years now sensibly following the targeted protein requirement first, then adding in fat for the remaining fuel as my goal is weight maintenance, not weight loss. I've never tested my blood BHB or urine ketones. Just using the Ketonics to test my breath ketones, which always shows that I'm in Ketosis. Recently. Just for curiosity's sake, I got my hands on blood BHB testing and my fasted morning readings average between 1.5 to two millimolar plus.

Nicki:

My recent urine test also shows elevated ketones, 60 milligrams per deciliter, which I wasn't expecting as I thought urine Ketones are only present in the beginning phase of the diet, so now I'm wondering is this normal and desirable or is it too high for someone who's been doing Keto for years? Does this mean

that I'm still not metabolically efficient after all these years? You know you always prioritize how one looks, feels and performance, but still I can't help but wonder, especially since the concept of the higher the Ketones, the better has never made much sense to me. So yes, to put it simply, I'm asking are my ketones to high? Thank you for your great work?"

Robb:

Man it's a really good question. And it's a better question then my answer is going to be. We just noticed that a lot of folks over time when they're on a ketogenic diet that their ketones tend to trend down, and this has been something that doctors Finian Volak even more recently have kind of acknowledged and provided some airplay to because originally they had their like optimum key ketone level that was like that one to range. And then we have all these people that were really succeeding on a Ketogenic Diet, particularly out of the Keto gains community and their blood ketone levels weren't anywhere remotely like that in general, not across the board. So people who eat a little more protein, like if they eat at the higher end of the Keto games recommendations will generally have a little bit lower ketone levels.

Robb:

And this isn't because protein turns into chocolate cake, it's because protein can get degraded into an oxaloacetate, sub strait intermediate that can then can facilitate the Beta oxidation of fats. And so we don't need as much ketones in that context. If more of the body's tissue shift to direct fatty acid mobilization then we may not need as high of ketone levels. So it's possible you may have a gene polymorphism that you don't use fatty acids as directly and you may still rely more on the higher ketone levels. I really don't know. That's honestly a bit of a guess, but we see a pretty good spectrum in the story and this is where the testing becomes challenging because we have someone like you that's motoring long weld doing great, but the levels are like Luis rarely gets above like 0.4, occasionally 0.6 and he's been key topic for like 20 years.

Robb:

So that's just kind of where he has settled out. Mine are similar, I have to do some pretty heroic stuff to be able to get to hierarchies certain levels. When we were doing it with you, you ended up testing pretty high and but it's interesting, Nikki's pretty metabolically flexible. She goes in and out of Ketosis, she doesn't really feel different one way or the other cognitively it doesn't seem to impact your performance, she don't really suffer the Keto flu. So I don't know, I wish I had a better answer than that, but I really don't know. But I will say that the folks who test low and then feel they're missing out on something and then default to eating the fat bombs and doing additional calories just to goose the ketone levels up, or they suppress protein intake to get to ketone levels up.

Robb:

I don't know that that's a net win over the course of time. If you have a neurological condition, if there's some specific medical condition that we're wanting to affect with the ketone levels, then that's a different case. But in general for good body composition, basic performance and whatnot, it sounds like you're motoring along well and you asked a great question and I that's kind of the best answer I could sling out there on it.

Nicki:

Okay. I think that was our last question for this episode.

Robb:

Cool.

Nicki:

Yeah, I guess it's time to go grab the kiddos from school.

Robb: I guess we can do that. Thank you guys for your questions. Keep firing off to us.

Definitely tune in for 10 and two follow me @DasRobbWolf on Instagram and

we'll-

Nicki: And everything goes on YouTube as well so you can always catch us there.

Robb: Yap.

Nicki: All right.

Robb: Take care guys.