

Nicki: Hey, Hubs

Robb: Welcome back, wife. What's new? What's exciting? We're living in the Arctic of Reno

Nicki: I know. It's been a really, really long, drawn-out spring going into summer. It's cold.

Robb: The White King is dead. Winter should be ending, but it's not.

Nicki: Winter is still here.

Robb: Yup. Did you want to fill people in on anything, or do you just want to jump in?

Nicki: If you want, sure, what we're thinking of doing.

Robb: Sure. Well, no, you do it.

Nicki: Well, we have decided that we are going to be moving to Texas.

Robb: You gonna be oblique about where so nobody can find us? We had a crazy story. Zoe was only a couple of days old...

Nicki: I don't know what crazy story you're telling.

Robb: ...that, when the people showed up at our front door?

Nicki: Oh. Yeah.

Robb: Yeah. So, a little bit of background, and I'm sorry, if you don't give two shits about this, just fast forward a little. A really close friend of ours had just had this super gnarly identity theft thing go on where somebody found out that they were out of town, they forwarded their mail... It was super, super messed up-

Nicki: Yeah.

Robb: ...and so we were kind of a little on edge from that.

Nicki: So, that was one week before, and then we had Zoe. She was super young. I was, like, nursing in the back room.

Robb: This was day four or five and we were completely sleep deprived, like, out of your head and you're legitimately insane at this point.

Nicki: Uh-huh (affirmative).

Robb: And, somebody had pinged Squatchy, and they're like, "Hey, I want to send Robb one of these exercise mobility ball things or something like that, and so Squatchy had given them our home address, and, lo and behold, somebody knocks on the door-

Nicki: (laughs)

Robb: and I show up at the door just disheveled and exhausted, and there are these people I've never met before with this little rubber ball. They're like-

Nicki: They're like, "Oh, we had a wedding to go to and so we were driving through, so we thought we would just personally deliver it." (laughs)

Robb: And so, after that, we got a P.O. box. And, it's not that we hide our location, but I've had a few, kind of wacky threats from the crazy vegans and stuff like that. We have kids and so, yeah. So, we'll be... it's central Texas. Yeah, we're looking at central Texas.

Nicki: Hill country Texas.

Robb: Hill country Texas.

Nicki: But, not Austin.

Robb: But, not Austin. Yeah. All the cool kids can go there. We're going somewhere else. So, anyway, yeah, we're looking at moving so the podcast may be a little hit and miss. We're trying to bank some of these-

Nicki: Yeah, but-

Robb: ...so that we stay on top of that but, yeah.

Nicki: Yeah. So.

Robb: That's our preamble on that, or our pre-ramble.

Nicki: Pre-ramble. All right. We'll jump in then.

Robb: Okay. Cool.

Nicki: So our first question is on enzymes and IBS from Ken, and he says, "Robb, talk to us about enzymes. I've played with a lot of different things over the years to help with IBS issues and, for a long time, I was devoted to probiotics, but I never found any real, consistent results with them. I took a stool test a year or so ago and discovered that literally none of the strains of probiotics I had so diligently taken and paid for were significantly present. Along the way, anti-fungals and anti-parasitic medication, doctor-prescribed, helped calm the fire down below, but it was enzymes that seemed to have made the final difference for me.

Nicki: Not only is the fire largely out, I've really not had to keep up with taking enzymes like I did with probiotics. To be fair to probiotics, they seem to help in the moment, but I get the sense you have to take them daily, which does not seem to be the case with enzymes. I should mention I know several people that have had the same experience with probiotics and enzymes, and my question is, what is the mechanism at work? I get that enzymes help break down foods, but why would that help with IBS symptoms and, furthermore, why would those symptoms be largely gone after only six months or so of using them, but not taking them even daily?"

Robb: Yeah, it's really interesting stuff. When I was at the UCSF conference that Akil Palanisamy puts on each year, really amazing event. Doctor Datis Kharrazian was there, and this guy is so smart. Chiro and also a Ph.D in Immunology, I think, from Harvard, so kind of... D.C., Ph.D guy, and he's a real, legit gut health expert, and really on the... how do you fix things clinically. And, he did an amazing breakdown of this whole story, and

he relies heavily on things like betaine hydrochloride, apple cider vinegar, which I have shifted to using capsules because, when I would do the apple cider vinegar shots, it was dissolving my teeth, which it has a tendency to do, and butyrate.

Robb: So, what's going on on that in kind of a multi-factorial story is that the enzymes in improving the acid content of the stomach while you're eating food... if you break everything down into its constituent parts, and we're really concerned about the proteins in this story, and proteins, whether it's from animal sources or plant sources, if they hit the gut lining as single amino acids or dipeptides, which is about the ideal scenario, there's really not immunogenic substance, then. There's not the problematic proteins that can irritate the gut and cause the motility issues that kind of typify IBS. And then, he recommended the butyrate because the butyrate tends to help fix the gap junction issues within the gut in kind of a primary indirect fashion.

Robb: So, when a healthy gut, assuming that an individual is eating some fermented, fermentable fiber and all that type of stuff, would get butyrate and propionate and malonate and these different short-chain fats, that improve gap junction function, and then, in theory, a healthy gut, people are robustly digesting all of their food, including the proteins, and also the carbohydrates that should be digested early in the process versus, you know, if we have poor digestion, those carbohydrates can make their way intact into later portions of the digestion, which is kind of where SIBO and all that stuff pops up.

Robb: So, that's kind of the mechanism there, and it makes a lot of sense, and what's interesting about that, it's a little bit reminiscent... the gut health topic and the microbiome topic is really interesting, and I think when we've talked about this a couple of times before, but clearly the gut microbiome and gut health is critical. But, we don't really know yet, I think in general, what to do about it.

Robb: About fifty percent... Most of the studies you look at, Doctor Ruscio has talked about this... a hundred people take a probiotic formula, about half of the people show improvements, half the people don't. Some of the don'ts actually get worse. So, it's very hit and miss in that regard, and also the probiotics generally are not intended to be repopulating the gut. They're actually intended to kind of tune the immune system, although some work from the Sonnenberg Lab suggests that the process of putting these gut microbes from probiotics through this system actually creates a more amenable environment for you to get other organisms from the environment that should be taking up residence there, and... really interesting stuff.

Robb: But, the point being that... if we look at people who have had different forms of ileostomies, like, basically having their intestines, to varying degrees removed, these people don't live shorter, worse lives than people with all of that real estate. And this is despite whatever injury or illness caused that scenario.

Robb: So, on the one hand, clearly the gut microbiome and gut health is really important, but it seems, in my mind... my kind of take on this, is it's really, really important to either function well or, if pathology has occurred, then we need to somehow address the pathology, because, clearly, just removing that real estate, it makes all the notion of, well, fiber is critical to health and all this stuff. It really kind of casts an interesting light on it, so, in the scenario of really augmenting frontal digestion with enzymes and potentially, again, apple cider vinegar or some other acid sources, that would appear to really fix a lot of problems because we're breaking the food down and there isn't the large proteins that are potentially immunogenically stimulating.

Robb: So, that's what's going on both on the probiotics side and, most likely, on the enzyme side. It is intriguing to me that you can get by with this with intermittent use instead of needing to be really consistent. But also, even though the IBS had gone on apparently for some significant period of time, he maybe only needs to kind of pulse that whole process. Because it is interesting, too, once the gut heals, then cholecystokinin release is more normalized, and acid secretions are more normalized. We know that *H. pylori* suppresses acid production, ironically, even though it's associated with peptic ulcers, but it tends to suppress acid production in the stomach to foster a more amenable environment for the *H. pylori*. So, sometimes if we move out the... if we change the gut microbiome in a favorable way, then it just actually gets a little bit of a feed forward mechanism going and it just generally functions better. So, yeah.

Nicki: All right. Our next question is from Terrence on squat pooping and toilet training. Terrence says, "Hey Robb and Nicki, loving the new Q and A format. You've done such a great job educating the public on what to put in one end of their bodies that I want to take a moment to talk about how to get the most out of what comes out the other end."

Nicki: I'm a first-time dad of a now-sixteen-month-old, so that means we're starting to approach potty training. As we all know, the natural Paleo way of pooping is getting into that deep squat and letting fly. So obvious to me that this is the way we're meant to poop. I see it every morning: my little girl suddenly stops playing with her toys and drops into that ass-to-grass squat that my jiu jitsu hips will never do again. By the time that thousand-yard stare creeps into her eyes, I've already got one hand on my SLS-free baby wipes. (laughs)

Nicki: Every parent has seen that and yet every parent in this hemisphere insists on trying to get their kid going from this squat position to sitting on a porcelain platform with his or her feet dangling. The toddler naturally resists with a, 'What the hell do you expect me to do from here?' look, and frustration ensues, but poop doesn't.

Nicki: Seems like transitioning your toddlers from diapers to seated toilets is yet another mismatch of nature in our modern civilization. For adults, it's easy to make a homemade platform, or buy a Squatty Potty, or similar product, but what's the plan for tots? I've considered setting up a kitty litter box in the bathroom. (laughs) Mother-in-law is almost certainly going to lose her shit, (laughs) but maybe that's the price of being the World's Number Two Dad." (laughs)

Robb: (laughs)

Nicki: Terrence, that's hilarious. "Would love to hear your Paleo poop solution for how we are wired to shit."

Robb: Terrence definitely gets Best Question of the Podcast History Award.

Nicki: He gets... yeah.

Robb: I don't know, I mean... the first thought that pops in my mind is, "This is a great product opportunity for Terrence to get in and try to address."

Nicki: You know what's interesting is other countries have... you do squat.

Robb: Right.

Nicki: I remember traveling to Turkey when I was nineteen, and even Italy, I think, they have some toilets like this, where it's a hole in the ground, it's porcelain, then there's a little spot for your feet, but you actually squat. And, it flushes, but you're not sitting on anything.

Robb: So, yeah.

Nicki: I'm sure you can order these toilets and have them installed in your home. [laughs]

Robb: Right. Can we do that with our new house?

Nicki: We can look into it.

Robb: Look into that. Yeah, I mean, we saw this same phenomena go down, and there is pretty clear literature suggesting that pooping not in a squat... you get a little bit of, like, fecal backflow because we're supposed to have a valsalva maneuver, and... so, yeah, this is another one of the things that... you know, it's so interesting, some of the articles on this, is, suggests that a lot of what we characterize as kind of normal GI dysfunction is a consequence of the way that we're pooping, but that's just so endemic that it's kind of a problem hidden in plain sight. The researchers generally never even ask the question, "Well, if I change my position and was in a more, you know, I guess it's not orthopedically, like, poop-opedically aligned position that, you know, this stuff would be addressed.

Robb: But, yeah, I've wanted the pit toilet for a while.

Nicki: Yeah, it's just a square, porcelain thing-

Robb: And it still flushes and does all that stuff, yeah.

Nicki: ...that sits in the ground with a hole, just like a normal toilet bowl hole, with little grooves for your shoes, and you just squat, and it has a flush.

Robb: Well, let's look into that.

Nicki: (laughs) Okay.

Robb: (laughs) Terrence, we'll keep you posted if we find one of those in the new digs, we'll send you info on it. But, really good question, and it's interesting, and this is another one of these things that we get our kids started off not on the right foot with a lot of stuff. Yeah.

Nicki: All right. Let's see. Our next question is from Luiza on falling off the wagon. She says, "I got your masterclass and it was paramount for the achievement of the keto sunset. Eight weeks in, fifteen pounds down, and I feel amazing. However, I'm quite a foodie, and will be heading to Paris for ten days in June to vacation with my brother and dad. I will be staying at a hotel and definitely don't want to miss out on real French croissants or pastries. I also am from Brazil, and while I can tell the benefits of keto long-term, I would not be able to go visit and skip out on eating fruit, which is most of my diet while I'm down there.

Nicki: So, my question: should I still try my best to keep up with the calories and macro count while traveling, and/or supplement with exogenous ketones? Do they even work? Or, should I not worry about it until I get back home? And, am I going to feel absolutely awful while getting back on carbs? On that note, maybe I should reintroduce carbs before I go. I appreciate your guidance on the issue."

Robb: So, maybe we'll start from the back and then work forward. Are you going to feel awful going back on carbs? I have no idea.

Nicki: Depends on-

Robb: ...it just depends, person-to-person. I don't know, I go back and forth on this. On the one hand, I guess a really minimal tweak to what you're doing and still being able to enjoy all that you have to experience there, try to make sure you hit your protein minimum. That just seems to be so important for not overeating, whether we're on a low-carb or a low-fat diet. So, by hook or by crook, just make sure that you get your protein in. If you're in Brazil, then eat all the fruit, but make sure that you're getting plenty of protein with the fruit. When you're eating your croissant, make sure that you don't forgo the eggs and-

Nicki: Sausage and whatever.

Robb: ...sausage and all that type of stuff. And, a little bit of portion control... I mean, the challenge, or the benefit, of keto is that we're removing the carb-fat combo, and that's where it becomes challenging for people to maintain normal appetite control. Again, adequate protein is really going to help with that, but... So-

Nicki: So, in Brazil, should she do protein and fruit, and skip any additional fat?

Robb: Yes.

Nicki: And in Paris, she could do protein and don't put butter on her French croissants and pastries.

Robb: Maybe a little bit, but yeah.

Nicki: Yeah, try to-

Robb: Just don't go crazy on it. Yeah.

Nicki: ...I think there's a lot of butter in them already-

Robb: Right.

Nicki: ...when they make them, but trying to minimize the fat if she's going to increase her carbs.

Robb: Yeah, yeah, to some degree. And, as to the exogenous ketones, exogenous ketones are great, but the point isn't necessarily to take a ketone supplement to paper over other dietary concerns, unless we're really tackling that from a neurodegenerative perspective, or something like that. So, I mean, I don't really see the exogenous ketones being a huge boon in this scenario.

Robb: If you like them, some people do notice that they do get some appetite regulation by dropping in a scoop of the exogenous ketones or the MCTs. There's one study that suggests a carb-rich breakfast plus MCTs caused people to then... and also, I've got to say they ate adequate protein in this, too, so it wasn't just carbs and MCT. It was a good whack of protein, some standard carb intake, but then adding MCT in, what they noticed over time, was that these folks tended to eat fewer calories overall throughout the day.

Nicki: Hm.

Robb: And Chris Masterjohn did a nice unpacking of this, and so... That might work that similarly with the exogenous ketones. We don't have a study on that yet. There is one reasonably well-performed study that suggests that MCT powder or MCT oil does that.

Nicki: Okay. Well, have fun, Luiza. That sounds like a really fun summer.

Robb: I wouldn't mind that. Yeah.

Nicki: Okay. Let's see. Our next question is from Sam on BJJ and recurring staph infections.

Nicki: "Dear Robb and Nicki, over the last twelve-year period, I've made numerous attempts to train BJJ, each attempt ending in a staph infection. My first time was about twelve years ago, where I got a good year of training in, which was punctuated by a pretty bad staph infection that flared back up a few more times shortly after. Eight years later, I went for it again, this time getting a staph infection after one week of training. Most recently, I got six months in before getting another. As you can imagine, every doctor I have talked to thinks I just need more antibiotics, or that I have some secret colony of staph living in my nose.

Nicki: This approach has obviously not been successful for me. It also fails to address why I only get them while training and never in the periods in between. While hygiene may have been to blame the first time, I was pretty careful the last two times, even if I wasn't 100% perfect. I had a funky sleep schedule before my most recent occurrence, which I think may have contributed.

Nicki: Some more details for you: I'm 33, in good shape, otherwise healthy, eat well, sleep well. I've always lifted weights outside of BJJ, but nothing crazy in terms of volume. My question for you is, if this was happening to you, where would you start? What would you be looking at? I've considered seeing a functional medicine practitioner, as I've wondered if there are some bigger picture immune issues at play, and I appreciate any thoughts you have on this. I don't want my BJJ career to be over so soon."

Robb: Yeah. Gosh, where would we jump into this? Getting a functional medicine assessment wouldn't be the worst thing in the world, to see if there is something kind of off with HPTA axis, cortisol, which could be suppressing immune function... Definitely the hygiene of the gym that you're in is a big factor. The places that we've gone to, they're pretty on it. They spray the mats down in between classes, and they're definitely on top of that. So, that maintenance is important. What is the name of the soap that Darien sells?

Nicki: Oh...

Robb: There's, like, a-

Nicki: It's Defense? Defense? Maybe?

Robb: Yeah, Defense Soap. Yeah.

Nicki: I'll find it for sure and we can put a link in the show notes.

Robb: Yeah, but I think it has tea tree oil and some other antimicrobials, and a lot of people swear by that. This is also why, even though my jiu jitsu game, I'm not fabric-dependent, I'm not hanging onto the gi. I tend to wear a rash guard, and then a gi. I don't usually wear sprats also, but you could do that. But, taking all that stuff, then you just have minimal surface area exposed.

Robb: So, yeah, I mean, the boxes to tick, see if there's anything that could be obvious with regards to immune function and something being amiss there. Definitely lean on the facility owners to clean the mats thoroughly. I would recommend wearing a rash guard, possibly sprats and a gi-

Nicki: Wash the gi every single-

Robb: ...and launder those aggressively each time.

Nicki: ...yeah, every single time. If you get off the mat to go to the bathroom, put shoes on and walk.

Robb: Yeah.

Nicki: Everybody in the gym should be wearing shoes into the bathroom, on and off the mat.

Robb: Yeah, they should be bringing sandals to go in. It's so gross when you see people sprint to the bathroom. The guy's always in...

Nicki: Barefoot.

Robb: ...barefoot, and then they come back on, and you're like, "Listen, knucklehead..." But, those are the things. Anything else? Yeah, laundering the, your... whatever you wear thoroughly, and then the Defense Soap, maybe, post-training would be the things that I would look at.

Nicki: Can the sleep thing... I mean, if you're super sleep-deprived and stuff-

Robb: Definitely, I mean, sleep-deprived. And, one other thought with this is, if you're going really hard rolling, it's like a CrossFit workout or something. People can turn these sessions into a near-death experience, which can kind of crush your immune response. And so, you may need to look at the intensity that you're training, and it's hard for people to do.

Robb: In the beginning, they just are battling for survival, and the only thing that you can rely on is strength and cardio and power output and everything, but that will knacker you, and it definitely impacts immune response. Yeah, it can kind of dig a hole. So, I would definitely consider, you know, how hard are you going and figure out ways of dialing that back. I would check out Henry Aiken's Hidden Jiu Jitsu course. He has a specific module in his course when he had a gig in Bali, and he actually has a block of, like,

fifteen videos that shows him rolling with the people that attended the event, and Henry just, he looks like he's almost unconscious.

Robb: Now, granted, he's got twenty-plus years of jiu jitsu experience, but even though I'm nowhere near where Henry is, my rolling looks way more like that than what you see in the competition videos, where people are super rigid and they're just go-go-go... and, so, and that's part of the reason why I've been able to train pretty consistently, and I try to figure out how my forty to sixty percent effort can continue to beat or make improvements on everybody else's ninety-five percent effort. So, that would be another piece to look at.

Nicki: Okay. Let's see, our last question today is from Alex, an adult on the autism spectrum: should I go keto?

Nicki: "Hi, Nicki and Robb. I'm twenty-nine and I was diagnosed as on the autism spectrum just two years ago. This would have been considered as Asperger's in the past. I've been primarily Paleo, ice cream is really good-

Robb: (laughs)

Nicki: ...for the better part of six years, but after running my DNA through FoundMyFitness, I'm wanting to address my dietary choices from a more personalized approach, including finding the most optimal choices to address some of the occasional stressors I feel associated with being on the Spectrum: anxiety, depression, and general cognitive and mood dysregulation.

Nicki: The most researched dietary intervention seems to be a gluten-free, dairy-free diet with a few studies looking into keto. However, each study I've seen is only looking at kids as the subjects, and typically with more severe symptoms than what I experience. Keto seems to be a promising approach, but is there any reason why this would be different for an adult?

Nicki: I tried keto for about a month a year ago, but immediately found my cognitive performance drop. While I know my macro amounts were appropriate, I used the Ketogains Calculator, I now know that I didn't incorporate the electrolyte component. Could this account for my initial struggles with it, and is there anything else someone on the Spectrum should consider while attempting keto? Supplements, macro ratios, et cetera. I'll include more details about me below, but thank you for your time in reading the question, and all of your work."

Robb: And, details: age, height, weight, CrossFit-

Nicki: Mm-hmm (affirmative), sleep.

Robb: ...decent sleep, and then he mentions some of his polymorphisms from the FoundMyFitness stuff. It's interesting, there shouldn't... if one is going to benefit from keto for a neurological situation. I don't see that there would be any difference between kids and adults. It is, that said, it is interesting many children who go on a ketogenic diet for, say, epilepsy, they don't need to stay on it for life. They're able to get off of it at some point.

Nicki: Mm-hmm (affirmative).

Robb: So, there is something that changes there. So, I don't know if the flip side could apply, that maybe there was a window in childhood where this could have worked and now it's not going to. That doesn't really make sense to me, but it... yeah, I don't know. But, definitely not everybody experiences cognitive improvement on a ketogenic diet. But, the lack of adequate electrolytes, in particular, sodium, is just jaw-dropping, make-or-break deal. So, if you were going to get back in and try this again, I would definitely check out LMNT, get, go... even if you just go to the drinkLMNT.com page, and then check out the How to Make Your Own Keto At Home Electrolyte Drink. One or the other, do that.

Nicki: Mm-hmm (affirmative).

Robb: Start supplementing, if you do Kettle & Fire Bone Broth, put some salt in that, significant amount.

Nicki: Mm-hmm (affirmative).

Robb: You really have to be on point with all that. You could also try using a little bit of MCTs or exogenous ketones in this scenario, because if we really are talking about a brain metabolism story, potentially some gut dysbiosis, those things may help in this whole process.

Robb: Additionally, on the supplements, a really rich form of DHA, EPA, DHA, but leaning heavily on the DHA, if you just eat a lot of fish. I'm wearing Wild Planet, these guys are amazing, getting fish from these guys or something similar. Sardines, mackerel, salmon-

Nicki: Mm-hmm (affirmative).

Robb: ...would be really beneficial, or you could supplement with a DHA-rich fish oil or krill oil formula.

Nicki: Okay.

Robb: Yeah.

Nicki: Thanks, Alex. Hubs, that was our five questions for this week.

Robb: Cool, cool. Somebody commented that they felt like we were rushed going through these, which I don't know-

Nicki: Oh, I didn't see that comment.

Robb: ...that we're rushed, but, yeah, it was a private message, compared to the Greg Everett days-

Nicki: Oh.

Robb: ...where we would just wax on and on and on.

Nicki: You had no kids and no... (laughs)

Robb: We had no kids and, also... I try to be as thorough as I can, but also concise because people have a shortened attention span these days-

Nicki: Mm-hmm (affirmative).

Robb: ...and so, try not to wax on too long, but trying to strike a balance between being both thorough and concise.

Nicki: Mm-hmm (affirmative).

Robb: So, there you have it.

Nicki: Yep.

Robb: Okay.

Nicki: Okay.

Robb: We'll talk to y'all soon. Oh, thanks for the-

Nicki: No, no, no, no, no.

Robb: Oh, yeah.

Nicki: No, no, no, no, no, no. If you have questions, you can submit them, robbwolf.com contact page. What else?

Robb: Drink LMNT sponsored this podcast.

Nicki: Yep. Sponsored this LMNT

Robb: Drink Element, and even though we're not-

Nicki: Coming into a summer, too, so, if you're in a hot climate in particular, you're going to want to be supplementing with electrolytes. If you're active, and you were saying something-

Robb: And, love the Wild Planet guys. So, they're a podcast sponsor this week, too. (laughs)

Nicki: (laughs)

Robb: They're really amazing people. They... So, the back of this shirt says something like, "When you... would your tuna... How was your tuna caught? One line, one fish, one process." They really are committed to sustainable fishing practices-

Nicki: Mm-hmm.

Robb: ...and they've been beating this drum for a long time, so big shout out to the Wild Plant people. They're wonderful folks doing some very cool work. In addition to the fish, they're also doing some meat and chicken options-

Nicki: Oh, I didn't know that.

Robb: ...in like the vacu-seal packs and stuff like that, but they're, like, organic and blessed by the Dalai Lama and all that stuff. But, really cool people, so, check out both of our sponsors, DrinkLMNT and also Wild Planet.

Nicki: Thanks, guys.

Robb: Take care. Buh-bye