

Nicki: It's time to make your health an act of rebellion. We're tackling personalized nutrition, metabolic flexibility, resilient aging, and answering your diet and lifestyle questions. This is the only show with the bold aim to help one million people liberate themselves from the sick-care system. You're listening to the Healthy Rebellion Radio. The contents of this show are for entertainment and educational purposes only. Nothing in this podcast should be considered medical advice. Please consult your licensed and credentialed functional medicine practitioner before embarking on any health, dietary, or fitness change. Warning, when Robb gets passionate he's been known to use the occasional expletive. If foul language is not your thing, if it gets your britches in a bunch, well, there's always Disney+.

Robb: Top of the morning there wife, spouse.

Nicki: Buenos dias, hubs.

Robb: Life partner. Reason for being.

Nicki: I'm trying to think of something witty that means shackled together. But it's not coming.

Robb: What is that like, we had this conversation earlier this weekend, like the, oh there was-

Nicki: Oh, who was-?

Robb: Somebody mentioned the term anchor wife because he's a-

Nicki: Oh because-

Robb: A guy here who came here from Germany, he's a German master backer and apparently was not well treated upon arrival. He was kind of indentured servant and then he-

Nicki: Then he ended up marrying an American woman-

Robb: And that's his-

Nicki: So, the term was anchor wife which I'd never heard before. And then, did you-?

Robb: Oh it was Michael that-

Nicki: Yeah.

Robb: Would mention-

Nicki: Oh he said, I'm an anchor-

Robb: That I'm the anchor husband.

Nicki: Yeah.

Robb: And then I said, " You know, that can have two meanings, like you're dragging your wife down to the bottom the ocean." So, yeah"

Nicki: Yeah. Anyway.

Robb: Sorry folks.

Nicki: There's that.

Robb: Yeah. This is-

Nicki: This is what happens when we record these early in the morning.

Robb: Well, and it shows you how limited our social interaction is that something like that is actually really noteworthy for us, so-

Nicki: Well, gosh, this episode, it's not July yet but it's July when this episode drops so, it's already, over halfway through 2020. Which, I think this year can't-

Robb: Thank god, I think unless 2021 is going to be worse.

Nicki: Can't end fast enough.

Robb: Fudge.

Nicki: But we do have our summer strength program with Basis Health and Performance on July 13th inside the Healthy Rebellion community. And that's free to members. So if you join the community you can participate in that, we are super excited about that-

Robb: Nicki, tell people a little bit about what the summer strength program is with Basis Performance.

Nicki: Oh gosh, they've put together a pretty cool program encompassing the three main power lifting lifts. So squat, bench, and deadlift, and also pull-ups.

Robb: I believe they're training the pull-up. Yep.

Nicki: Also training the pull-ups.

Robb: Yeah.

Nicki: They've got some accessory movements. And they also do some super setting with mobility exercises pulled from Kinstretch. So it can help solidify, improve your range of movement in some of these positions-

Robb: Yeah.

Nicki: So you actually get in the proper position. So super stocked for that. Those guys are amazingly talented. So that's exciting. And gosh, Sacred Cow is releasing in less than two weeks now.

Robb: Literally. Holy cow.

Nicki: Holy cow.

Robb: Yeah.

Nicki: We've got tons of great pre-order bonuses, actually over 200 dollars worth of pre-order bonuses. So you still have time to get those if you haven't pre-ordered yet but you've got to pre-order before July 14th, which is release date.

Robb: Hey, and I know this is going to happen, somebody's going to be like, they're going to drop their pre-order-

Nicki: They're going to order it on the day.

Robb: They're quote pre-order on the 15th or whatever, "Can I get the bonuses?" No. You can't.

Nicki: No. Nope. Because it's-

Robb: This is for everybody that did it ahead of time.

Nicki: Yep.

Robb: So-

Nicki: It always comes up but as far as, to keep our promise to the people that are already pre-ordered and have pre-ordered from the very beginning when we announced that it was available for purchase, the deadline, you have to order it before July 14th, which means you have to order it by July 13th.

Robb: Really, when you get right down to it-

Nicki: Because release date is July 14th.

Robb: Yep.

Nicki: So as of July 14th, no bonuses. Some of those bonuses are, include a cookbook, some exclusive interviews from the film-

Robb: No a ton-

Nicki: A ton.

Robb: Four hours of-

Nicki: Yeah.

Robb: Interviews. Yeah.

Nicki: Interview footage and only for pre-orders, you get a sneak peek of the film before everybody else.

Robb: Well it's not just a peek, it's-

Nicki: The whole-

Robb: Early access-

Nicki: Yeah.

Robb: To the film.

Nicki: Yeah, yeah.

Robb: Yeah.

Nicki: You get to see-

Robb: Let's no understate the value here, wife.

Nicki: Yeah, no, I know.

Robb: And it's amazing. It's, Diana did an amazing job on the film.

Nicki: Mm-hmm (affirmative).

Robb: It's absolutely, it's spectacular and it compliment, the book and film compliment each other really remarkably but, if you want all that shit, you got to pre-order.

Nicki: You got to pre-order.

Robb: You got to go to sacredcow.info/book.

Nicki: /book. And you'll learn how to get those bonuses, you can pre-order it from wherever you like to do that-

Robb: And if you don't do that you don't get it. Period.

Nicki: Yes.

Robb: This is, there are no participation trophies here. You got to fucking get it across-

Nicki: The line.

Robb: The end zone. Or line, or whatever. So, yeah. Results do matter on this. It, yeah.

Nicki: All right.

Robb: Can I beat that one to death?

Nicki: Oh you would take one more swing at it, no, just kidding.

Robb: I'm trying to come up with witty analogies and I'm just failing horribly so I'll drink more coffee. I'm sure that that will help.

Nicki: Speaking of coffee, I think that's part of your news topic du jour. Or caffeine in particular.

Robb: Yes, yeah. The effect of caffeine on endurance performance in athletes may depend on the genotype effectively. And, I've, it's interesting. Of late, a lot of folks have been asking, "Hey, what do you think about these genetic tests and how it suggests the diet you should eat?" And there are some really whack-, I think we talked about it on a previous show-

Nicki: On the, yep, the last Q&A.

Robb: Where it was like, "You should eat sardines and cotton seed oil."

Nicki: Cotton seed oil.

Robb: What the-, yeah okay. I'm not a big fan of a ton of that stuff but there are some, there, it's a nascent science we're learning. We're in the beginning. The thing that annoys me about it is that, instead of acknowledging that we know almost nothing about it, some people get some venture money and they go in and package all this stuff up and then present something as if we have it super buttoned up and we just don't yet. But there are some examples like this, and this paper talks about it. That, some people really get a performance boost from caffeine and some people it's either, no boost, or it's ergolytic, it's actually performance damaging.

Nicki: Hm.

Robb: And there's a dose response curve on that. Interestingly, about 50 milligrams of caffeine is a pretty damn good dose. Which is about a quarter cup of standard brew coffee. Like a good Starbucks coffee is going to be 200 milligrams caffeine. The optimal dose for most people is way smaller than what they're using and ironically, like in all the WADA stuff, the anti-doping world, there is a limit to how much caffeine you can take. But once you are at or beyond that limit, it is known to be ergolytic. So if the person is that high,

they're actually known to be damaging their own performance. Which is why so much of the drug testing stuff is a farce, but anyway, side note, clearly. But this is a pretty cool paper and you can, if you dig into this, I mention this in the Healthy Rebellion, and it mentioned the different genotypes, but was interesting is, when folks went in and looked at their 23andMe data, this thing, this paper is talking about specifically the sense strand of DNA, but then 23andMe apparently reads the antisense strand.

Nicki: Hm.

Robb: And so that can get very confusing for folks because even though both sides of the DNA code for the same thing, just in different ways effectively. And so, a couple of folks were like, "Well what does this mean?" And they actually dug up a Tommy Woods piece where he was talking about the fact that much of the research that is done is on the sense strand because that's the thing that actually codes for the RNA, but then, a ton of the, 23andMe, I assume genes and stuff like that, they actually code, look at the antisense strand.

Nicki: Hm.

Robb: So you have to do a little bit of translation in that to understand that they are in fact the same thing.

Nicki: Gotcha. Gotcha, gotcha. Let's see here. Our t-shirt review winner this week goes to Jollygreen615. "Delicious nuggets of wisdom no matter your walk of life, Robb and Nicki have a health and wellness topic for you. Gut health, fitness, regenerative agriculture, it's always a power-packed surprise. No talking heads or crooked deals allowed here, just solid facts and a palpable passion to help others feel their absolute best. Every episode you'll walk away with loads of delicious nuggets of wisdom. Rest assured, they're cooked in plenty of good nutrient-dense fat. Enjoy"

Robb: Absolutely.

Nicki: Jollygreen615, thank you for that review. Send us an email to hello@robbwolf.com with your shirt size and your mailing address and we'll send you a Healthy Rebellion Radio t-shirt. And this episode of the Healthy Rebellion Radio is sponsored by our friends at Paleovalley. They make the most powerful, pure vitamin C supplement that you can get. Paleovalley essential C complex is one of the only immune-boosting products on the market. Made from whole food sources of vitamin C that your body can effectively absorb. Paleovalley essential C complex contains three of the most potent sources of vitamin C on the planet. The unripe acerola cherry, the amla berry, and the camu camu berry. The acerola cherry alone is 120 times more potent than an orange.

Robb: Yeah no, I've been a big fan of these folks for a long time. They're, all of their stuff is super good, very well thought out, and I tend to put the vitamin C in with my before bedtime wind down because of the potential effects of mitigating cortisol release. So, yeah solid stuff.

Nicki: Yeah they have got some great products. And, actually, vitamin C is an extremely fragile nutrient. And it can very easily lose potency if it's not processed correctly. So Paleo Valley has worked with the most responsible manufacturers they could find to gently break down each of these fruits. And to guarantee no vitamin C was lost in processing they recruited a non-biased third party tester to confirm it, that it contains the amount they've put on the label. So grab your Paleo Valley essential C complex by going to paleovalley.com and use code THRR10, that's, the Healthy Rebellion Radio 10, THRR10, for 10 percent off your order. Okay hubs, it's time for today's questions.

Robb: Let's do this.

Nicki: Are you ready?

Robb: Yep.

Nicki: Okay. This first one is from Matt on fat absorption. "Robb, long time listener, love the content, keep it up. My question is about fat absorption. I've been dealing with some health issues the past few years and have tried several things from dirty keto, to AIP keto, to AIP paleo. For the past ten weeks or so I have been in the world of nose-to-tail carnivore and am having some success. I haven't checked my ketones, but I expect I'm in a decent level of ketosis most of the time, as I'm not doing any carnivore carbs like milk or honey."

Nicki: "My meals, usually three per day, are around eight to 10 ounces of meat/organs plus added fat. The meat is usually a leaner cut for cost efficiency, sirloin tip roast is a go to. All this said, I'm having trouble with fat absorption. I have realized that my body has a tough time with rendered fat, as it triggers an almost immediate trip to the can. I've adjusted by grilling all my meat and organs rather than using the skillet and supplementing raw suet. Two to three ounces per meal. This has improved the situation but I'm still pretty loose and end up with pieces of what appears to be fully formed undigested suet. It almost reminds me of my days eating mounds of kale. It seems my body's having a tough time emulsifying and absorbing the fat but I'm not sure."

Robb: Is it bad I have, kind of a gut ache.

Nicki: Just reading that?

Robb: It's like, oh.

Nicki: "But I'm not sure what else to do to improve the situation. I would like to avoid cutting the fat back since otherwise I would have a tough time hitting my calorie goals. I'm also right at or slightly above one gram per pound of total body weight of protein, so I don't want to increase that any more. Any advice is appreciated."

Robb: Man, the thing that occurred to me, there was a great paper which I linked to and it looks at dense acellular carbohydrate being the common factor when folks shift from traditional diets to more refined westernized diets. That is, there's lots of things that

change, there's more sugar, there's seed oils but, so I guess it could get a little contentious, what is the primary thing that changes? But basically taking whole carbohydrate, which, carbohydrates have a cell wall and the nutrients are inside the cell wall and you need to break that down, and there's a whole process to it, refining dramatically changes that. I remember there was a, and I can't track this paper down for the life of me, you folks out there that are listening if you could poke around a little bit and maybe you could find it but, the study looked at the blood glucose response of traditionally milled corn tortillas versus modern milling techniques.

Nicki: Hm.

Robb: And the modern milling techniques it wasn't hand-milled with two rocks but it was mechanical, but not far off of the hand-milling deal. It was much more-

Nicki: Coarse.

Robb: Much less refined basically.

Nicki: Coarse ground.

Robb: Much more coarse. Much more coarse ground. And the blood glucose response was three times higher on the highly refined stuff versus the less refined stuff. And what occurs is that the milling process today is so efficient that it breaks the cell walls. So then you have effectively raw carbohydrate that can enter the system very quickly and our digestive enzymes can act on it really rapidly. It's a little bit different here. Where part of the problem is that again, if we think about kind of human history, raw fat is a rare thing. Even in dairy products, whole cream is still part of a matrix of an overall food. Butter, it's-

Nicki: Is he saying he's eating is raw?

Robb: Well no, but he's mentioning that he's, rendered fat is giving him problems.

Nicki: Okay.

Robb: Or basically the fat is kind of melted out of the suet.

Nicki: Right. Okay.

Robb: So it's being removed from the protein matrix of cells, of animal cells. And that's kind of my point in referencing this paper. Our digestive physiology is well suited for nutrients in these kind of minimally processed forms. And when we process them more you can have a lot of problems and so, I've noticed this issue and interestingly, I notice it being more of a problem if I do something more like pork fat or beef fat, versus even olive oil. I feel like I can put more olive oil on something-

Nicki: Hm.

Robb: And suffer less of that whoosh factor.

Nicki: Hm.

Robb: But the long and short of it is, this is maybe where you look at, can you tolerate some avocados, what are some other things that you could drop in there. You could certainly add an ox bile digestive enzymes. The NOW Food super enzymes are fantastic. Those things will help this but it also, it paints a little bit of a question of whether or not this is the best way for one to eat. Again for, I know Mikhaila Peterson, she's three years into her lion diet experiment. And she's going to start introducing some plant materials. She's going to tinker with some peeled, well-cooked applesauce first-

Nicki: Hm.

Robb: And then she's got a couple of other things because, she got in, and both from prior experience and also researching just kind of the immunogenic potential of some different plant materials she was like, "Apples are good." And she's got her-

Nicki: Hm.

Robb: List of things. So even for her, carnivore wasn't the goal, it wasn't, "Hey, I'm going to eat only one cut of meat, eat salt, and drink water."

Nicki: Forever.

Robb: And call that good forever. It's kind of where she landed and she and many other people have been able to heal themselves, but I don't know that that's the place that one wants to hang out forever. Maybe it is, maybe you feel so much better. To some degree that's why I've stuck with more or less low carb keto-ish. Because even though I've tinkered a little bit at the margins, I immediately don't feel as well and so it's like, "Okay, easy day, I'll just go back to that." But, the only thing I could recommend is some digestive support, really focusing more on the suet, maybe cutting that stuff up into smaller pieces. Chewing really, really, really well.

Nicki: Mm-hmm (affirmative).

Robb: Even though in theory, carnivores are able to gulp down chunks of food. But, yeah, I mean those are, improving the digestive potential.

Nicki: I wonder if we could get some marrow bones for-

Robb: Marrow bone would be a possibility but I would say that starts getting near to that rendered fat scenario.

Nicki: Mm-hmm (affirmative). Okay.

Robb: It's, yeah.

Nicki: Fattier cuts of maybe.

Robb: Definitely, that is the other thing-

Nicki: So it's in the-

Robb: Because he's-

Nicki: Cell matrix.

Robb: Matt's mentioning that. Yeah, and I mean this is where the 80/20 ground beef, and you cook it in a skillet, it pretty much pops out like keto ratio. There are a lot of people that motor along with that. So that's actually a fantastic point, yeah.

Nicki: Okay. Our next question is from Holly on COVID-19 and cholesterol. "Hi Robb, I love your work. I saw a recent paper come out of China that indicated that a majority of those hospitalized with COVID-19 had low serum blood cholesterol. Can you comment on what you think the significance of this is and why higher cholesterol might be protective?"

Robb: Yeah I mean it's just, fairly well understood, even in, well I want, I was going to say within mainstream circles but this is one of these things that kind of blows most doctors away. But, people who experience a septic event, like they're undergoing surgery and they nick a bowel or something, people with very low blood cholesterol levels tend not to survive as well as people with higher blood cholesterol levels.

Nicki: Hm.

Robb: And this is one of the interesting features of the aging research, particular in women, women with higher blood cholesterol levels, they have lower cancer rates, they have better survival from infections. And what the lipoproteins do is they play a host of innate immune response roles and jobs that helps to mitigate viral spread, it reduces gram-negative toxins like lipopolysaccharide, which this is in a, the bacterial infection. But again, it just plays a host of roles, kind of an antioxidant, it's somewhat immunomodulatory.

Robb: So this is, it's not a case to want to go Lean Mass Hyper-responder necessarily, and have a total cholesterol of 500. I think that there could be some challenges with that. But being at the higher end of normal and then everything else being good, you could kind of make the case that there's some benefit there. At a minimum on the infectious disease side. I know it's really contentious. I think it's worth recognizing that there might be some potential downside, with regards to cardiovascular disease risk. But, again, there's a lot of moving parts there.

Robb: But, in biology, there's a trade off with everything. And so, mitigating disease potential, or of infectious disease potential, might we increase our likelihood of say, chronic degenerative disease? From, say, cardiovascular disease? Maybe. Maybe. I think it's

worth entertaining that. And we can think about how we deal with that but, that's kind of the main mechanism of how higher, and it's interesting, when somebody arrives in the hospital, is their cholesterol low? Did they catch COVID because they had low cholesterol, or is the cholesterol low because they caught, or are in the COVID disease process? And fighting that process-

Nicki: Hm.

Robb: Is reducing their cholesterol levels-

Nicki: You'd almost need to know what their cholesterol level was before-

Robb: Yes, yeah.

Nicki: They contracted it.

Robb: Yeah. Yeah. So, and that's something that folks will kind of, we just, I feel like almost every episode we have kind of an example like that. Where it's like, well you could look at it like this or-

Nicki: Mm-hmm (affirmative).

Robb: Is that cause or is that the effect?

Nicki: Mm-hmm (affirmative).

Robb: And it's really important to delineate those things. But without a doubt cholesterol, or lipoproteins, play a role in the innate immune response. And there's a case to be made that being super low in cholesterol levels leaves you more exposed to infectious disease.

Nicki: Hm. Okay. Our next question is from Kat, on the topic of starch from mucus membranes. Kat says, "It would be awesome if Robb could address the issue of Paul Jaminet of the Perfect Health Diet, saying that some people need to have some starch to not have their mucus membranes dry out." And then she links an article on that theory.

Robb: Yeah. And it wasn't that he said some people need to do this, he said everybody needs to do this. And Paul's a brilliant guy. Brilliant guy, ten times smarter than I will ever be. That said, a lot of folks get, and the concern was that, with inadequate basic carbohydrate intake that the bacteria in the gut lining would start going after the polysaccharide-rich mucus layer that protects our actual gut from the gut contents. And if the gut contents actually make contact with the gut wall then, inflammatory bowel disease can set in and stuff like that. And it was super concerning. Everybody on the lower carb side of things was really kind of paralyzed by this. And this is where I got in and tried to diligently do my-

Nicki: He had bags of potato starch and bags of-

Robb: Yeah we had, yeah, and we fiddled with and it just ruined me. And I don't know that this has been specifically looked at with regards to the mucosal membrane and low-carb, ketogenic, carnivore diets. But what's interesting is that there are a, it's not the appropriate answer for everybody, but there's a ton of people that just had gut issues that would not go away and then when they went keto, keto-carnivore, what have you, the gut issues resolved. For the first time in their life, or the first time in years. And again, we don't know specifically what's going on with the mucosal membrane but, when you start looking deeper at what the gut microbiome does under different circumstances, there's indigestible kind of fiber in meat that feeds gut bacteria. And it acts in very much the same way-

Nicki: Hm.

Robb: That indigestible plant fiber does. Certain amino acids produce propionate and the short-chain fats that everybody gets all verklempt over with regards to carbohydrate fiber fermentation. So there's actually a remarkable amount of stuff that happens in that kind of carnivore-centric scene. It does change the profile of the gut, but the profile of the gut changes all the god damn time. It, people, this is another thing where, we know that gut health is important and that is almost everything that we know about it. And there are some folks that will change just, or claim super deep understand-, "Oh well this species does this, that species does that." And I think it's just horse shit. At one level, we don't even know for sure that a given species has the genetic machinery to do the things that in theory it does. So what we need to be looking at is functionality not necessarily species. So, do we have one that converts certain amino acids into short-chain fatty acids, as an example. And that's a gene story. Not a bacterial species story.

Nicki: Hm.

Robb: And I know that's getting kind of out in the weeds. But this is just something that, I think that it was a really contribution to the conversation, a lot of folks kicked the tires on it. Some people notice feeling better with the recommendations that Paul made. And a lot of people didn't. And they actually go in exactly the opposite direction of less starch, less carbohydrate, they ended up feeling better. And some people will say, well, they just end up stuck there. Maybe. But what was the alternative? It's like, these people-

Nicki: Mm-hmm (affirmative).

Robb: People like me, they're sick, I am thinking more and more that, much of my gut issues related, even though, Reno and Chico are not that far north, it's further north than where we are now.

Nicki: Mm-hmm (affirmative).

Robb: And I'm way, way healthier being in Texas and I just get more sun.

Nicki: Mm-hmm (affirmative).

Robb: I get more water. I, it's warmer all the way around. And my digestion is way better. Green salads are still the devil for me. But my tolerance for some fruit and stuff like that is pretty good. Accidentally got a pretty good gluten exposure the other day and didn't, I had some gut rumbles, but it wasn't that bad. And where normally I would be sick for probably four or five days.

Nicki: Mm-hmm (affirmative).

Robb: The day afterwards, like yesterday or the day after the exposure, I was a little bit tired, a little bit run down, but not bad.

Nicki: Mm-hmm (affirmative).

Robb: Not bad. Where as normally, that would've just laid me out.

Nicki: Yep. Several days.

Robb: So, there's all these other factors in there. We get so wrapped around the axle of just, the food. But is a lot of carbohydrate intolerance, is a lot of food intolerance, because people aren't getting enough sunlight and enough vitamin D and all the co-factors going on there? And if you are in a situation where you can't move and you either can't find or can't afford a tanning bed or something to supplement, all that stuff, then going lower carb may be the way that you, that's the other control rod that you have to tinker with.

Nicki: Mm-hmm (affirmative). Mm-hmm (affirmative). Okay. It's time for our Healthy Rebellion Radio trivia. Our episode sponsor Paleovalley is giving their immunity bundle, which includes essential C complex, turmeric complex, and grass-fed beef sticks to three lucky winners selected at random who answer the following question correctly. Robb, what is your current, because I know this has changed over the years-

Robb: It's like our kids, my favorite animal today is-

Nicki: I know. A unicorn. What is your current favorite podcast?

Robb: Really my favorite one for quite some time has been Common Sense with Dan Carlin, although he doesn't do them very often anymore because he's kind of given up hope on our situation. But, I would strongly encourage folks, particularly with all the stuff that's going on right now with social unrest and the wacky stuff around the coronavirus, this dueling banjo of people wanting to try to guarantee safety at all costs, where as other people are talking about personal freedoms and there's a really powerful interplay there. Dan talked about this stuff at length years ago, five years ago, six years ago.

Nicki: Mm-hmm (affirmative).

Robb: And it plays better today than it did then. Because shit wasn't nearly as bad then as it is now. Yeah. So I strongly encourage checking that out. And also, within the, that podcast was one of the things that has changed my mind about different topics.

Nicki: Hm.

Robb: More than any other podcast I've listened to. He frames things in ways, and explains them so thoroughly that I'm, I would arrive with one set of preconceived notions and then when he's done presenting his case, I'm like, "Oh, okay. I'm going to probably modify my thinking on this." And I learn things from many people. Dan Carlin is one of the rare people that changed my mind on things.

Nicki: Hm.

Robb: Which I think is pretty powerful.

Nicki: That's awesome. Yeah. All right so the answer is Dan Carlin's Common Sense Podcast.

Robb: Yes.

Nicki: To play go to robbwolf.com/trivia and enter your answer and we'll randomly select three people with the correct answer to win Paleo Valley's immunity bundle. The cutoff to answer this week's trivia and be eligible to win is Thursday, July 9th at midnight. Winners will be notified via email and also on Instagram. And this is open to residents of the US only. And our next question is from Colleen. She says, "Hi Robb. I've just completed the audio version of Wired to Eat. I was a captive audience and grateful for the terrific information. My mom has Alzheimer's and although I've been extremely healthy, preventing this and other neurodegenerative diseases is important to me. I just googled Robb Wolf and vegetarian hoping for some guidance. Instead I found a million reasons why I shouldn't be vegetarian. I'm fourth generation vegetarian and eating meat is not an option. It isn't about morals or the planet, not that those things are unimportant, your rationales would let me off the hook. But a burger to me would be like a bowl of fish eyeballs might be to you. Maybe you like those too."

Robb: I don't know.

Nicki: She says, "I'm just not willing to eat meat. I would love your advice on how I can aim for your results without the meat, chicken, and fish. I will eat eggs if I load them with veggies and salsa, whey and plant based protein powders, and tempeh. I'm anxious to start your seven day test to see how I respond to beans and lentils. I'm not making judgements for the world, I'm just looking for a way to be my healthiest and still be vegetarian. Thanks for your time. Colleen."

Robb: Yeah, so with what Colleen will eat. She will eat eggs, whey protein, the fact that she would consume whey protein then I'm curious if she would eat cheese. I'm just trying to think about what's the greatest variety we could get here.

Nicki: Right.

Robb: Because it's like, hard cheeses, soft cheeses, cottage cheese.

Nicki: Right.

Robb: It just opens up a bunch of options there. Cow dairy and goat dairy, just to vary things. I would ask, would shellfish be in the mix here?

Nicki: Mm-hmm (affirmative).

Robb: And it may seem a little bit-

Nicki: She says no fish, but-

Robb: She said no fish, but what about shellfish? There are some, it's kind of rare, but there are some people who designate themselves vegan but they will eat shellfish because they have no central nervous system and-

Nicki: Hm.

Robb: This is where this stuff becomes, I won't say arbitrary, but highly specific to the individual.

Nicki: Mm-hmm (affirmative).

Robb: So, I would just want to really vet out what type of options do we have here.

Nicki: Mm-hmm (affirmative).

Robb: And then it sounds like Colleen's-

Nicki: I'm also wondering about bone broth. I know-

Robb: Yeah I don't know.

Nicki: Like as a stock, in a vegetable soup.

Robb: Yeah.

Nicki: Just, because, it's not about morals or the planet. So, so if it's about nutrition it's again, what are the, how close can we get to the edges of that, and dramatically increase her nutrient profile.

Robb: Yeah. Yeah.

Nicki: That she's comfortable with.

Robb: Yeah. Yeah. It's a good thought. I mean I, yes, it's a very good thought. So again, I think that the best answer here would be, better understanding what the concrete boundaries are.

Nicki: Mm-hmm (affirmative).

Robb: Do we have, whatever wiggle room there is here. And, for you, Colleen, I would really think about where the absolute hard fast boundaries are. Like, is bone broth okay? Is fish bone broth okay? Are shellfish okay? The fact, again, the fact that you're consuming some whey protein, I would assume dairy at large is okay? And so we have cheeses, and cottage cheese, and different things like that.

Robb: And then, we just, it sounds like she's going to do the seven day carb test, and then based off of the results there, then we can probably do some, some tinkering with the best glycemic load relative to overall calories consumed and overall food consumed and whatnot. And we'll, that's just what, if Colleen's just rocking her response to lentils and other grains or legumes or whatever than there's probably a lot of latitude here. If it's kind of on the rougher side than we need to really ask some hard questions. And the fact that there's already an Alzheimer's diagnosis with a parent, genes are not destiny, but there are predispositions here. And, what are we calling Alzheimer's now?

Nicki: Type three diabetes.

Robb: Type three diabetes. And although-

Nicki: Managing blood sugar is-

Robb: Yeah, managing blood sugar is-

Nicki: Paramount.

Robb: Is super important in this regard. It just absolutely is. So, yeah, I mean there's a lot of stuff to kind of unpack in all that. So, knowing better what the boundaries are. Knowing better what the results of the seven day carb test looks like, I would definitely track A1C, probably once every six months at a minimum.

Nicki: Mm-hmm (affirmative).

Robb: From here going forward, maybe even do, well, I was going to recommend something like Lumosity, or whatever. But the feedback on that is that, you get good at that and nothing else.

Nicki: Hm.

Robb: It has no transfer ability to anything but, just kind of a cognitive benchmark.

Nicki: Hm.

Robb: Mainly just looking like A1C and overall blood sugar control. But it's an interesting nut to crack in this regard.

Nicki: Could she do, I'm just thinking about just for the neurodegenerative protection elements of a ketogenic diet, if she went more on the heavy fat side of that, since clearly it's going to be kind of tough to get a ton of protein this way?

Robb: Could be and even adding MCT-

Nicki: That's where I was going, yeah.

Robb: MCT powder.

Nicki: Yep.

Robb: I mean you can get an appreciable blood ketone level-

Nicki: Right.

Robb: Which could be neuroprotective in that scenario.

Nicki: So maybe because it might be challenging for her to get enough protein doing, assuming body composition isn't an issue, maybe going towards the higher fat.

Robb: Go the higher fat and then supplementing with some MCT, that's a great call yeah.

Nicki: Mm-hmm (affirmative).

Robb: Because Mary Newport, her initial work in this area, I believe her husband had Alzheimer's. And they were just putting MCT on oatmeal and corn grits and stuff like that. Which are kind of like cheeses. The glycemic load of that is-

Nicki: Right.

Robb: Remarkable. But despite that, the guy made improvements, and so even improving the food quality on the front end and not bludgeoning the person with the really gnarly glycemic response but supplementing with the MCT could be a good call, yeah.

Nicki: Okay. Our last question this week is from Jared on alcoholic kombucha. "Hi Robb and Nicki, I've been following you since your days with CrossFit and have always been impressed with your level of experience and your well-reasoned way of condensing your experience into effective generalizations. Back in the olden days you had good advice about alcoholic beverages, with the NorCal margarita. So you seem a good person to ask this question to. Over the last year or so I've been very much enjoying alcoholic kombucha. It's better tasting than regular kombucha, doesn't have the gluten, and doesn't seem to have the sugar of ciders and things like that. It has replace gluten-free beer for my weekend imbibing. So, is this a health drink I should turn into a daily habit? Or should I be more worried about daily alcohol intake?" I know what he wants your answer to be.

Robb: Jared, go get piss drunk, every single night and kombucha will save you from it. It's funny, we've had all this back and forth on, alcohol's kind of beneficial, no it's not. And I think at the end of the day, alcohol is a toxicant, damages the liver, it really impairs sleep, and it's pretty fun. And it's part of socializing. And so I think there's just kind of up and down sides to that. I'm almost 50 and my desire for alcohol now is almost zero. I'll have a drink here and there every once in a while, you and I will do a vodka tonic or something like that. And it's enjoyable but the downside, it's just not great. And it's funny, same deal on the morning stimulant side too.

Nicki: Mm-hmm (affirmative).

Robb: It's like, coffee is just way less appealing to me now.

Nicki: Especially in the summer.

Robb: Especially in the summer. It just decreases a lot and so I think you just kind of have to look at, hopefully Jared does a couple of days without booze so we can have a baseline of what normalcy is without alcohol and I think you just have to make the decision about, how does it impact your life? And all that type of stuff.

Nicki: Particularly, your sleep.

Robb: Particularly the sleep, yeah.

Nicki: I think when folks are drinking pretty regularly, the sleep is impacted. You might, I don't know, a lot of people think like, I need my drink to fall asleep, but it really doesn't help the quality of your sleep throughout the entire night.

Robb: Mm-hmm (affirmative).

Nicki: Your body temperature tends to be higher and you wake up more.

Robb: You don't, yeah, you're in lighter sleep. You don't get the really deep restorative sleep. So, I wish there was a perfect drug out there. I was tinkering with a little bit of kratom and it's kind of cool but my sleep sucked from that. And it's just like, melatonin and a good book is kind of-

Nicki: Mm-hmm (affirmative).

Robb: What I have. Not that this is specifically a sleep question but, I wouldn't say that alcohol of any form is a health food.

Nicki: Right.

Robb: And beyond that, I will say that if you're going to have some alcohol, figuring out something that's not loaded with sugar and all that-

Nicki: Yep.

Robb: Is probably a fantastic idea. Beyond that, it's-

Nicki: Right.

Robb: Yeah.

Nicki: It's nice to have if you're having some friends over, your special occasions and whatnot, but I don't know about the daily habit.

Robb: The daily could be tough.

Nicki: The daily-

Robb: Yeah.

Nicki: Yep.

Robb: Yep.

Nicki: Yep. I don't think that's the answer that Jared was wanting but-

Robb: That's not the answer anybody wants. I mean it's not really the answer I want.

Nicki: Yeah.

Robb: But Huey Lewis, long time ago-

Nicki: I want a new drug?

Robb: I want a new drug. Yeah. I mean, it's just, if there's an upside, there's almost inevitably a downside. I mean it's like exercise, meditation, gratitude, are kind of the, just being in love or whatever, these are things that you feel better and maybe you get a little bit of a euphoric experience and stuff like that. But then it's not an absolute drizzling shits downside to it.

Nicki: Mm-hmm (affirmative).

Robb: But then beyond that it's just, kind of cost-benefit deal.

Nicki: Mm-hmm (affirmative). Yep. Random fact.

Robb: Hm?

Nicki: Huey Lewis and the News was the very first live concert I ever attended, when I was 13.

Robb: And Nicki's musical taste has not really improved since then, so-

Nicki: And with that folks we will wrap up today's episode. Thanks for listening as always. Remember to grab some Paleovalley essential C complex by going to paleovalley.com. Use code THRR10 for 10 percent off your order. Have a safe Fourth of July everyone.

Robb: Don't blow your hands off people.

Nicki: Yep. Be safe with your fireworks. And anything else hubs?

Robb: Nope. I have nothing. Other than, thank you all for listening and take care.

Nicki: Yeah, we'll see you next time.

Robb: Bye.