

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.

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Nicki: We are rocking and rolling.

Robb: Do you feel awake, wife?

Nicki: I am awake. It is a good deal later in the day, and our normal recording time.

Robb: The last time.

Nicki: Yeah. We've already done jiu-jitsu and everything today.

Robb: Not everything.

Nicki: Not everything.

Robb: Most of the things.

Nicki: But a lot of the things.

Robb: Just to get all-

Nicki: We still have this thing.

Robb: To get Greg Everett and hairsplitty on you. Yeah.

Nicki: I'm usually the hair splitter of the family.

Robb: You could be a barber. You split sufficient hair. I'm surprised you didn't go into that line of work. What's new? What do we have cooking?

Nicki: Welcome, everyone. Let's see. Only a couple days left before Sacred Cow releases.

Robb: Holy smokes. Holy cow.

Nicki: Tuesday. Holy cow. Yeah, normally, you're like, "Holy cats," but you got to actually say holy cow this time.

Robb: We got to do a holy cow.

Nicki: Yeah. Release date, it's Tuesday, July 14th, so just a few days away. There's still time to preorder and also claim your Sacred Cow preorder bonuses. As Robb has mentioned before, those go away after the 14th, so if you want those-

Robb: Don't whine. Don't bitch if you don't get it-

Nicki: Go to sacredcow.info.

Robb: We've begged and pleaded and thrown it everywhere we could, and there will still be people-

Nicki: I didn't get one.

Robb: ... who'll say, "I ordered mine in December and I didn't know about it," and it's like ... Yeah. Sorry, I'm being a dick but-

Nicki: You are being ... You're good at that. But Sacred Cow-

Robb: But if you want it, it's a ton of cool swag, so definitely get after it.

Nicki: Yes, sacredcow.info/book, and there'll be instructions on how to send in your receipt showing that you preordered, and then all of those bonuses will be sent to you via email. What else? Diana is coming to visit, so that's super cool. She's coming this weekend and we're doing an Instagram Live launch party on Monday night. Both Robb and Diana will be on doing that, answering some questions. That will be likely at 8:00 p.m. Central Time on Monday.

Robb: Can't wait. Super excited.

Nicki: Tune in if you guys are on Instagram. Tune in, that will be fun. Something to celebrate. We would love, we wanted to do an actual launch party, but the COVID happened.

Robb: The VID has shut some stuff down. We really pestered the local Barnes & Nobles, and they're just not really-

Nicki: Like book signings aren't a thing.

Robb: Yeah, it's just not happening.

Nicki: A lot is different in today's book launch landscape than it has been in previous-

Robb: Yeah, perfect timing.

Nicki: ... previous efforts. Yeah, yeah.

Robb: We've had a lot of folks in the UK who are ... They're very much not wanting to buy the book from Amazon. I'm not sure what the deal is, like just supporting this monopoly or whatever. But we're just at this point in time where our hands are tied in many regards.

Nicki: There are other booksellers.

Robb: There are other options but-

Nicki: I know Powell's out of Oregon.

Robb: But this is in the UK.

Nicki: Oh, this is in the UK. Yeah.

Robb: Yeah, yeah.

Nicki: I'm wondering, are there any independent booksellers in the UK?

Robb: I'm not sure. I'm not sure. It's not easy.

Nicki: I think I remember Diana mentioning that her assistant was going to put some information on the Sacred Cow site about-

Robb: Other options.

Nicki: ... some other options for-

Robb: Independent booksellers.

Nicki: I remember Australia in particular, but maybe also the UK. There might be some stuff there.

Robb: Yeah. But we commiserate with you. We would have loved to have thrown as much support to local independent bookstores as we possibly could. It's not really happening. Yeah.

Nicki: Such as the time that we are in currently. Let's see. What is our news topic today?

Robb: The news topic is it's a pretty cool piece. It's interesting. I've titled it Cows and Methane. This is from a joint paper hosted at the FAO/IAEA. I believe that stands for the Federal ... What is it?

Nicki: Food and agriculture. No. Nuclear Techniques-

Robb: Federal Accounting Office, and then the IAEA is the International Association of ... Oh man, I think it's Atomic Energy. International Atomic Energy Commission. Pretty, pretty big wig stuff. The paper just largely, and it's not a whole paper, but it tracks data looking

at atmospheric methane concentrations relative to a bunch of different factors. What's interesting is that as of around the mid-90s, methane concentrations in the atmosphere started flatlining and somewhat decreasing, yet animal husbandry has increased, like there were more ruminant animals on the planet.

Robb: Now, there's a zillion different factors that go into this stuff. There are methanotrophic bacteria. One of the interesting things that appears to be happening as a consequence of climate change is that there's more greenery growing. The greenery grew up because there's more carbon dioxide in the atmosphere and it's basically like a fertilizer, and so the NASA and the Journal of Physics had these pieces talking about how the greening of the planet may be mitigating climate change to some degree. It's still unknown to what degree it's going to influence it.

Robb: But one of the interesting side effects of things growing and life existing is that if there's a fuel source, something will usually figure out a way of eating it. One of the things that is a fuel source in this story is methane. There are methanogenic bacteria and there are methanotrophic bacteria which eat methane and convert it into basically carbon dioxide. It's a really complex story. I don't want folks to just willy-nilly dismiss this topic. There's so much a chatter and anxiety around the biogenic greenhouse gas emissions, the greenhouse gas emissions, carbon dioxide and methane being the two primary ones, that are a consequence of life.

Robb: The case that Diana and I have made, the case that many people have made but insufficient numbers of people, is that the biogenic greenhouse gases need to be counted and looked at very differently than what comes from transportation, the mining ancient carbon sources in the form of fossil fuels and then releasing them at a rapid rate. The main thing to take away from this is there's this narrative that with increasing numbers of grazing animals, there is a lockstep increase in methane production, and that is not the case.

Robb: Again, this is a pretty impartial like these ... Everything's politicized these days, like taking shit is a political statement at this point. This is pretty robust data. Again, to whatever degree Bill Gates or whoever else is pulling the purse strings on different things, this is stuff that, at a minimum, it doesn't fit with the general narrative of grazing animals increased greenhouse gas emissions, because the greenhouse gas emissions are flatlining and plateauing in that methane sector, which if it was the case that more grazing animals were the driver, then it might be different.

Robb: Again, this is somewhat reminiscent of thinking about why does someone have low vitamin D levels. They may not be consuming enough, they may not convert sunlight into it, or they may be utilizing a ton of it. It is possible that ruminants are producing lots and lots of methane. But it's also possible that life expanding is consuming more of that methane and we just don't have the answers to that. But, again, if we were to look at a big pie chart, this is a tiny slice of this overall picture that needs to be considered instead of taking this one piece, either for good or ill, and saying, "Oh, this proves one thing or the other." But it is interesting that it doesn't fit with the general narrative that's thrown out there. Can I beat that to death anymore?

Nicki: No.

Robb: Okay.

Nicki: Let's see. Let's move on to our T-shirt winner this week. It goes to Sean in Wisconsin. Much better than Disney+. I valued Robb's perspective on health and nutrition topics for many years. Robb is a trusted voice in the space because he lets the latest research guide his views, not trends, not fads, not marketing. Robb and Nicki also keep the show light-hearted and fun in the midst of all the knowledge being dropped. Thank you, Sean in Wisconsin. Send us an email to hello@robbwolf.com. Include your T-shirt size and your mailing address, and we will send you a Healthy Rebellion Radio T-shirt.

Nicki: This episode of The Healthy Rebellion Radio is sponsored by BLUblox, the best blue light glasses for better sleep, recovery, and optimal wellness. BLUblox Sleep+ lenses are red lenses that block 100% of light in the melatonin disruption zone unlike other brands. BLUblox come in prescription, non-prescription, and readers, and best of all, they are stylish so you don't look goofy like you're wearing safety glasses and getting-

Robb: I still look goofy. You look amazing.

Nicki: Okay, not everybody looks goofy.

Robb: Okay, fair enough.

Nicki: When you buy a pair of glasses from BLUblox, they also gift a pair of reading glasses to the not-for-profit RestoringVision, which is also super cool. They offer free shipping globally. Go to blublox.com/robb15 and use code ROBB15 for 15% off your order.

Robb: Awesome. Really quickly on that note, I got to hang out with Dr. Kirk Parsley a weekend or two ago, and on all the sleep hygiene stuff, it gets super complex, people have these amazingly long lists of different things to do. He just really boiled it down to reduce light and reduce stimulation in the evening. BLUblox are a perfect company for making that happen. Yeah.

Nicki: I know people have been wearing BluBlockers for a while, but if you haven't tried this as a strategy if you struggle with sleep at all and you haven't yet tried a product like BLUblox, it could be the missing link for you.

Robb: It changes everything. We've had many a person, drag heels, Chris Freidland coming to mind who just bitched and whined about the sleep stuff.

Nicki: It can't be that big, it can't help that much.

Robb: This guy is a very high achiever, lots of business success, go, go, go, and then we finally got him to take sleep seriously and it was like, "Okay, got it. Check." Hasn't stopped him from partying like a maniac, but he just rests in between those bouts now.

Nicki: That URL one more time, guys, is blublocks, that's B-L-U B-L-O-X, .com./robb15, that's R-O-B-B, double B for Robbie here.

Robb: Like the goose from Charlotte's Web. The goose like doubled everything.

Nicki: Oh, doubled all the letters. I know that book, but it's been many a year.

Robb: Yeah, we're not going to watch that with the kids anytime soon.

Nicki: I remember crying quite a lot.

Robb: It's a gut-wrencher.

Nicki: I know that book, it's very sad. But it's a good one. You know what?

Robb: Cycle of life, man.

Nicki: Death is an important part of ... We did just bury a frog the other day because-

Robb: Cat murdered frog.

Nicki: ... the cat murdered a very large frog actually. The frog was bigger than my hand from webbed toe to webbed toe, I guess. Sagan, our youngest, is-

Robb: A fanatic of frogs.

Nicki: ... very partial for frogs, loves frogs.

Robb: That is her spirit animal.

Nicki: She also loves cats, but she stormed around saying how much she hated our cat for a whole day, basically, because he killed the frog. But we had a nice little burial and put some flowers and pretty rocks on the little frog's grave. Anyway, how did we get on that tangent?

Robb: I don't know. I don't know.

Nicki: Sorry, folks.

Robb: I don't know if doing these later in the day is better than early in the day.

Nicki: Right. All right. Let's jump into our questions.

Robb: Cool.

Nicki: We've got one from Juan asking a question about rhabdo. Hello, Robb. I recently made a horrible decision and participated in this year's Murph knowing that I was dehydrated.

The Saturday prior to Memorial Monday, I was out floating down a river enjoying a couple of beers. I failed to pack sufficient water during the float and slacked on hydrating afterwards. I did the Murph anyways, completed it, went home, and tried to play catch-up. Come Wednesday morning, I'm in the ER getting admitted to inpatient and treated for rhabdo. Labs are normal, kidney and liver tests are normal. Now what? After years of wrestling, several half marathons, running 30 miles a week, where do I start again? I'm cautious but optimistic I'll be back. I just want to do so smartly. Do you have a protocol or have any tips or experience with the process?

Robb: We have altogether too much experience on this. There's a couple of things maybe buried in this, though, when people say hydration. There's a couple of things that jumped out of me. I failed to pack sufficient water during the float and then I completed it, went home, and tried to play catch-up. What I'm reading in that is there was a sense that maybe more alcohol than hydration was consumed on one day and then, on the next day, the makeup or the attempt to catching up, generally, what people do is screw that up, and it's just water. Not to make this like an advertorial for element, but this is a really great example of it's critical to make sure that electrolytes are an integral part to the rehydration process.

Robb: When you look in the textbook of medical physiology, hydration doesn't refer to water, it refers to water in the dissolved solutes, basically calcium, magnesium, et cetera, et cetera, sodium. That's one part of it. It's like just being clear about what hydration is and is not. The practice of consuming lots and lots of water, particularly in a rhabdo state, makes things worse in a way, like it can be okay for kidney function, but it can actually exacerbate the downward spiral of shedding potassium. That's an interesting thing that needs to be well-managed.

Robb: Then backing up even a little bit further, and probably go out on a limb and just say that one was not ready to do Murph. I don't know how many people really are ready to do Murph. It's one of these things that ... It's awesome. Michael Murphy was an amazing guy. Really, really heroic story around his death and honoring him with this workout. But it's a ton of work. There are a remarkable number of people who end up with rhabdo from doing it. Sometimes they get hospitalized, sometimes they don't.

Nicki: For those that don't know what Murph is, it's you run a mile.

Robb: Run a mile.

Nicki: You do 100 pull-ups.

Robb: 200 push-ups.

Nicki: 200 push-ups.

Robb: 300 air squats, run a mile again.

Nicki: Then you run another mile.

Robb: To do it properly, you should wear either body armor, weighing 20, 30 pounds or 20 or 30-pound vest. It's a lot. It's a mountain of work. This is-

Nicki: If you haven't been training and doing that volume of any of those movements-

Robb: It can be really hard to do it.

Nicki: ... you're going to be torn up.

Robb: This is just some of the stuff that you'd have to tackle things smart. CrossFit started off, one of the things that was so appealing to me about it was that it was this minimal effective dose approach. We would brag about how little we needed to do, because the things that we did were effective and they were synergistic and everything. Then when it became sport, it shifted from what is the minimum effective dose to how much can I do without dying, and it doesn't always finish well. This is just, again, before we even talk about how to get in and start programming, you need to put some thought into the way that one is tackling this. If this is your tribe, if these are the people you hang out with, I get that, but maybe half Murph is what you do and-

Nicki: There's no shame in doing a half Murph.

Robb: There's no shame in doing a half Murph. That still seems like a ridiculous amount of work. But as far as rebuilding after this, hydration really needs to be on point, nutrition needs to be on point. Once you've had-

Nicki: Sleep.

Robb: Sleep needs to be on point. Once you've had one bout of rhabdo, it's like heat exhaustion, you have a tendency to experience other bouts of rhabdo. The rhabdo in the context of CrossFit is interesting because we usually see this happen in hot environments. Historically, it's been like army recruits or football or something like that, and it needs a warm environment. We started seeing these things that we would call like cold rhabdo, where it really wasn't a particularly hot environment. But the two things that happen is the massive amount of shear force and eccentric loading that happens.

Robb: Even doing kip pull-ups, you pop over the bar and then you ballistically drop below the bar, particularly wearing a weight vest, and you do it 100 times, and you do the same thing with push-ups, and you do the similar with air squats. There's a ton of shear force there. Then there's also this phenomenon of substrate depletion, where there's just no more energy left in the cells, which is why you have to stop, but people do it again and again and again. What this triggers is this tendency for the muscle cells to just die, they just rupture.

Robb: This is part of what is clogging up folks' kidneys because their myocytes just die and disgorge myoglobin into circulation. That's not good, because then our satellite cells and stem cells have to go in and repair that, and you only have so many of those. This is,

again, we're like in a smart dose to stave off aging and look good and feel good. That's great. But, in my opinion, the goal should, unless you are making money doing this stuff, it's like what is the minimum effective dose that we can get on that.

Nicki: Right. We don't know how old one is, but when you do decide, or getting back in, he's asking like what could be a potential protocol or tips and it's like some strength work.

Robb: Real simple strength work I would go check out, either like Power Athlete in some of the templates that they use or StrongFirst, they have some free templates that they have. Their paid stuff is very reasonable also.

Nicki: Watching your volume. Like stair-step back into it.

Robb: If you do those things, then you're following programming from people who know better than to murder you. That's where I would offload the responsibility on that. Then you could also look at just a very simple Maffetone pace cardio program. Another thing that comes to mind is Alex Viada's hybrid athlete program which is very, very good and is super smart with both the volume and the intensity of both the strength work and the conditioning piece. I would recommend that one really rethink this stuff and honestly offload the responsibility of what he's up to to somebody else. Get somebody to program for you or find an online program that is reasonable and follow that.

Nicki: Just assuming that he belongs to a CrossFit gym because he did Murph, I'm assuming with other people.

Robb: That's a good point.

Nicki: That might be his tribe. How might he reintegrate into to CrossFit land?

Robb: Hopefully, they have a strength-only program.

Nicki: Right. It's easier way back in.

Robb: If they don't, then it's not really that good of a gym. But this gets into this dog chasing its tail thing. You're going to have to do half doses and quarter doses. This is the problem of just a come-one-come-all CrossFit group fitness model, where he's coming off of this rhabdo deal, either he needs to self-police because the coaches aren't or he needs to really explain what's going on with the coaches, and they need to do some individual assessment, which is tough to do when you've got a group of 10 to 20 people in there. You try to put as much love as you can on everybody, but it's largely like don't throw up and there you go. My suggestion was long and pretty shitty, all things considered. But it's interesting, there's a lot going on with this stuff. Hopefully, Juan, you find this helpful. It'd be interesting to know what you do and how you climb back out of this, honestly.

Nicki: Yeah. Question number two is from Nellie about a backpacking trip. She says, "Hello. I'm doing really well on your program, the keto masterclass. I'm on day five. I'm drinking

electrolytes. Next weekend, I'm going on a backpacking trip in Rocky Mountain National Park with my family. Normally, I would consider this an easy trip. Four mile hike in, 1,500 foot elevation gain, sleep one night at 9,000 feet, and hike back the next day. Now, I have a bit of anxiety on how I will feel while still adjusting to keto on days 12 and 13. My question is, do I add calories because of the strenuous effort ahead, or for continuity's sake, do I keep them at the same level as my home days?

Nicki: If you have any suggestions on what to bring for foods, it would be great. All I came up with is a lot of eggs and some greens and very few nuts. It was really easy with cereal bars for breakfast, but now I am not having those. I know you mentioned deviating from the diet to be social and not to create stress, but this is different. I'm the one packing everyone's food, and I am very precise about it so that we don't carry extra weight. I'm also worried about being in higher elevation on this. I'm almost hoping your advice will be just take a two-day break, but I would like to be consistent with the program. Thank you so much."

Robb: I think it would be easy to basically pack "keto," although I would assume the rest of the family isn't eating that way.

Nicki: I don't know, she's the one packing the food.

Robb: Maybe it's for everybody.

Nicki: They might just eat what she brings.

Robb: I would just bring a little bit of stuff like granola bars, so if somebody's feeling flat and they need a little bit of a carb boost, that seems totally reasonable. When you think about calories per weight deal, things like trail mix are pretty badass, like the dried fruit, the nuts, decent amount of carbs.

Nicki: Jerky.

Robb: Jerky is good. But in circumstances like this, you don't need to be so protein-centric. High protein intake increases water needs and stuff like that. Particularly for a two-day deal, having some jerky is fine, but if you're just really concerned about packing in enough food, enough calories, and having as little space and weight taken up as possible, jerky is a good option. But, again, if you normally eat 25%, 30% of protein, for those couple of days, it could be 10% or 15. It could really drop down significantly.

Nicki: You're just upping, you're eating more fat and-

Robb: Upping the fat and carbs, yeah. Fat, and/or fat and carbs, yeah.

Nicki: Should she add calories? Should she add calories or stick to her caloric prescription?

Robb: I would bring extra.

Nicki: Bring extra?

Robb: This is all I would say. I would bring extra, maybe 50% above baseline just in case you're not feeling good. This is definitely a situation where electrolytes are going to be critical, you are not yet fat-adapted. Depending on the way that she was eating previously, she's right in the no man's land of every time they do a study where it lasts two weeks, the performance sucks. People feel lethargic. They're really tired. You have to be absolutely perfectly on point with electrolytes. If you add some LMNT pack that. Bouillon cubes are great because they taste good and sometimes you get over having sweet things and you want something salty and savory, and bouillon cubes are awesome.

Nicki: If she has the ability to heat water.

Robb: I would assume they do. If not, then, I guess, a shaker bottle and tepid room temperature bouillon cubes, which is far less appealing than otherwise, but yeah.

Nicki: Let's see. She says she's bringing eggs and greens. I'm trying to think of any other snack or food suggestions that would be easy to pack.

Robb: Again, it depends on what the situation is. When I did a lot of my backpacking, we went to places where you could still do back country campfires, and so the first day, I would take things like meat and veggies, potatoes, whatever, chop all that stuff up and then freeze it in aluminum foil, two or three layers of it, and then it was like a frozen brick and it would keep my stuff cold the first day. But then by the time we got camp set up and I got a campfire, I would just set that in the cold and it would cook and steam, and then you had one really kick-ass hot meal. Then the other stuff was usually freeze dried or just trail mix or whatever, but that was a super cool way to go. Depending on what they have going on, they could probably do something like that.

Nicki: She's just sleeping one night so they could definitely do something like that. Cool. Good stuff. Sounds like fun.

Robb: We'll do that again someday.

Nicki: We should do that sometime. We haven't been backpacking in ages.

Robb: It's hot as balls in Texas still, I don't know where we're going to get backpacking here.

Nicki: Yeah. My cousin was saying frequently, I don't know, I think the snake factor here is pretty high.

Robb: Yeah. We have a lot of critters in her backyard so I can only imagine in the wild, wild west.

Nicki: That's true. Okay. We have a question from Trey on low-dose naltrexone. Robb and Nicki, what are your thoughts on long-term, possibly lifelong use of low-dose naltrexone? I'm a 36-year-old male with intense and painful ankylosing spondylitis

symptoms. The symptoms are mainly heavy inflammation flares, localized in my mid spine, triggered by stress and just about all foods. The really painful inflammation comes at night and it interrupts my sleep. Day flares are much more manageable. I came off of immunosuppressant drugs about three years ago and dedicated myself to reversing the disease. I've since experimented with keto, intermittent fasting, and AIP-inspired food avoidance.

Nicki: I've never experimented with carnivore because, frankly, I would prefer to go back on the immunosuppressant drugs before I take that hit in quality of life. I also just about tried everything else you can think of, daily hot yoga, Bikram and Baptiste, daily sauna, an ice bath, psychedelics, Wim Hof breathing, meditation, weight training, spinning, acupuncture massage, herbs via multiple functional medicine docs. I even traveled to India and got a few IVs of mesenchymal stem cells. It definitely got some improvement over the course of the last few years but still was having a daily struggle and fear with the disease.

Nicki: I started taking low-dose naltrexone about 10 days ago and, bam, game changer. I can eat a paleo/low-carb diet, probably getting anywhere between 50 to 150 grams of carbs a day without fear. I don't have flares that interrupt my sleep and I have the energy and recovery to alternate daily between intense weight training, spinning, and hot yoga. The only side effects I've noticed was rough sleep the first couple of nights taking it and the night that I titrated up the dose. As I endeavor on a possible lifelong relationship with low-dose naltrexone, I would like to understand the risks and mechanisms by which this stuff works. Any insight would be greatly appreciated. Thanks, Trey.

Robb: Low-dose naltrexone is really interesting. It's been used in adjunctive therapy for autoimmune disease, cancer, all kinds of different stuff, and it works via a really interesting mechanism. It blocks the opiate receptors in the body. There's a period of time where the body isn't sensing its endogenous opiate products, so it upregulates the production of these products and you get a stimulated release, and this has really interesting effects on the immune system. What's fascinating to me is that, in the case of cancer, you could make the case that we want an enhanced immune response. Cancer is good at avoiding the immune system. That's part of one of the problems with it.

Robb: In the case of autoimmune disease, we want a mitigated immune response. But low-dose naltrexone seems to be helpful for both. It seems to modulate the immune response. It's really fascinating. It was originally used in some alcohol dependency applications and, usually, folks took 50 milligrams of it. In those circumstances, the low-dose naltrexone is anywhere from a half a milligram to two to three milligrams. Some people do report some super wacky dreams. I remember the first time that I tried some low-dose naltrexone, I had the crazy opium fever dreams, had some weird GI issues with it, and then it settled down. I can't say that it did much for me personally, unfortunately. Moving to a hot sunny environment has been a miracle for my health, but that didn't help me as much.

Robb: The long and short of all that, we don't have long-term trials on this stuff. But the toxicity is low. The fact that it's modulating the immune response seems like an overall win. I can't think of what the downside would be with long-term use, particularly when you consider ankylosing spondylitis doesn't have great outcomes associated with it. My sense is that low-dose naltrexone is probably safe for the rest of one's life, 50 years or something like that.

Robb: Even if it wasn't though, this is one of these situations where, okay, how dangerous is it versus how dangerous is this potentially fatal autoimmune condition when you don't have any other control rods to manage it? I think that this looks like a really favorable scenario, given that low-dose naltrexone seems to be very, very safe, and so long as folks tolerate it, that seems good. Then, above and beyond that, you also have to do the risk analysis of what's your life going to be like and what are the likely outcomes of not properly managing this.

Nicki: Great. All right, hubs.

Robb: Do you want me to do this one?

Nicki: Yeah, you do this one.

Robb: Okay. It is time for The Healthy Rebellion Radio trivia.

Nicki: It's time.

Robb: Today's trivia sponsor is Drink LMNT. Drink LMNT is giving a box of LMNT Recharge Electrolytes to three lucky winners selected at random who answer the following question correctly. Nicki, what is your favorite submission in jiu-jitsu? I know we've done this one with me but folks want to know about you.

Nicki: Okay. I think my favorite is the bow and arrow choke.

Robb: Any specific position? Like usually back and technical mound are the main spots.

Nicki: Technical mound, I get there the most frequently, but I would take it from the back, too, if I could.

Robb: You do pesky bow and arrow choke, so bow and arrow choke it is. Remember that. To play, you have to go to robbwolf.com/trivia and enter your answer. We will randomly select three people with the correct answer to win a box of LMNT Recharge Electrolytes. The cutoff to answer this week's trivia and be eligible to win is Thursday, July 16th at midnight. Winners will be notified via email and we'll announce the winners on Instagram as well. This is open to US residents only. How did I do?

Nicki: You did great.

Robb: Thank you.

Nicki: Yeah. I would give you some side applause here.

Robb: Thank you. Thank you. I usually suck at reading things like that. I do pretty good off the cuff.

Nicki: That was fabulous. Okay. Our fourth question this week is from Sheila on complete amino acid supplementation. Sheila says, "Amazing podcast with Dr. Gabrielle Lyon. She's beautiful and brilliant," and I would second that. Sheila's question, do you recommend supplementing with complete amino acids to get adequate and highly absorbable protein? I was thinking of a product such as Ben Greenfield's amino acids. He's a big advocate for it due to the absorption factor. Not part of the question, but I was thinking that nutrition experts like you would be perfect advisers to guide nutritional guidelines for our country. Now is the time to step up. We're in need of recommendations that will actually make people healthy. Folks don't need the BS recommendations that the World Health Organization puts out such as increasing canola oil and reducing saturated fat, then there's a facepalm emoji. Thank you for all the service you provide. Much appreciated, Sheila.

Robb: Before we get to her real question, it's interesting. They're reviewing the dietary guideline recommendations again. They do it every two years, every five years, and it's a disaster. They 100% excluded anything looking at low-carb diet, and this is supposed to be this broad reaching, comprehensive, unbiased deal, and there was-

Nicki: Sorry to interrupt, but it would be amazing to be a fly on the wall when these people are discussing what ... How are they even able to not look at this huge body of evidence that's working for so many people?

Robb: There are more processed low-carb foods, but let's face reality. There's some cool things. Quest has some cool things. Perfect Keto has some cool things, these keto cookies and stuff like that. But I don't think any of that is ever going to 100% replace the legit junk food market, the shit you can do with some corn and some seasoning and it just makes magic. That stuff is super high profit margin. It's subsidized by the government in various ways.

Nicki: Funding by people like Bill Gates.

Robb: Funding by people like Bill Gates. Have we mentioned him twice now in this podcast?

Nicki: I think he's gotten two name drops.

Robb: Man, we'll be banned off of Apple here soon or wherever.

Nicki: Microsoft.

Robb: It's a bummer. There are some cracks in the wall, like what the President of the American Diabetes Association is, I believe, a type one diabetic and she manages her diabetes with a low-carb diet, like a Bernstein-type diet. There are some cracks in the

wall. I just read something that in Japan, it's now going to be on the employer to hold their employees' feet to the fire to have certain health metrics. One of the basic health metrics is like men and women cannot go beyond a certain waist circumference or they get charged inordinate amounts of money. This is funny within this modern-

Nicki: That would never happen here.

Robb: ... the environment within the United States where you can't fucking tell anybody anything.

Nicki: It's discrimination.

Robb: It's discrimination and all the rest of that. Some places like Japan see the writing on the wall and they're like, "Yeah, we got to get out ahead of this," and so, it's going to be equal parts on the employer and also on the individual to get their little red wagon in line and make some stuff work. It's interesting, unless society collapses or we decide to make a move that drives society into collapse, there's going to be some really big changes, and some reasonably draconian changes that occur. This is where I hope that we're able to put something-

Nicki: Unfortunately, I think a lot of them are coming in the form of meat taxes and whatnot.

Robb: It is. This is, again, can we wax eloquent for a moment about this?

Nicki: Yes, we can go off on a tangent.

Robb: We're getting ready to release Sacred Cow. We've had all kinds of wacky shit. We had a prominent person in the Paleo scene say that they were not going to support me because I wasn't doing enough to fight racism. We had this long discussion around it and I was just like I just don't see this as being something I can wade into right now. The environment is such that if I make one misstatement, my head's going to be on a pike. My head will probably be on a pike for even saying this as part of this podcast, but I've reached a case of the fuck its and I don't even care anymore.

Robb: We have other people within the regenerative ag scene that have been giving Diana in particular and myself also absolutely ridiculous rations of shit for a whole host of really shitty reasons, like super manipulative shitty reasons. People haven't even read the book. They haven't watched the film and they're going-

Nicki: Making a lot of assumptions about what's in the book.

Robb: Making a lot of assumptions about what's in the book. Making assumptions about what the book is because Diana and I are white as just a baseline. There's just all this shit. Even the people that we would hope would generally be on our side, we have attacking us. I don't want to be this whiny shithead here, but it's a lot some days.

Nicki: No, it's not about whining. It's just about acknowledging the climate that we're in. It's a very unique time in history with all of this.

Robb: You know what? What we're trying to do is call out the totality of our fucking food systems from literally soup to nuts, like everything and some things we like better than others and we make our case. I wouldn't say that we got it all right but, in my opinion, I haven't seen somebody else get it righter. Generally, when people have dismissive thoughts about this stuff, it's, again, my previous answer where they're looking at this tiny slice of the pie and then extrapolating this to the whole story.

Robb: Anyway, Sheila's going to be like, "Oh, my god, I regret even asking that second part of this thing," but I'm hopeful that some pretty big changes occur. We're in a really tough spot. We need to be able to have discussions about a wide variety of topics. If somebody doesn't 100% agree with the narrative du jour, maybe we should listen to those people instead of lopping their head off and try to understand where they are so that maybe if they are really confused, we can make a reasonable case about like, "Hey, have you considered this or would you like to go intern at this place and see how this happens and then you can form a better opinion?" We don't do anything like that.

Nicki: There's no discussion anymore.

Robb: There's no discussion and the cancel culture stuff just rolls on and on, and this 100% feeds into the industrial food system. This is one of the things that makes me just fucking nuts and is honestly really disheartening because in order to be able to fight, you need a little bit of latitude to just say some things and to draw some connections to it. If you step out of line, maybe you make a misstep, maybe you actually are just making a point that's controversial and people need to harden the fuck up and listen to it and think and maybe change their position.

Robb: Whatever the case, none of that happens. We're cowed into submission in the powers that be just fucking roll forward. There are a good number of people in the paleo ancestral health scene that their hearts are very much in the right place, but I would go out on a limb and say they are feeding into this whole process of making this shit just worse. They're not actually facilitating discussion. Anyway, sorry, Sheila, we didn't-

Nicki: We need to actually answer her original question-

Robb: We need to actually answer you original question.

Nicki: ... which was do you recommend supplementing with complete amino acids to get highly absorbable protein?

Robb: I don't. Just eat meat. Eat seafood. We're trying to steep, have some chicken, have some pork.

Nicki: I think as you used to say in the Paleo Solution Seminar, it needs to have a face and a soul.

Robb: A soul and you kill it and bring its essence into your being, yeah.

Nicki: Yeah, that was the quote.

Robb: The Paleo Solution Seminar would probably get me to run out of town in this day and age.

Nicki: Yeah, saying that is probably actually not okay.

Robb: The research on taking isolated amino acids, and people will make these cases like, "Oh, it's fewer calories and it's not extraneous and the absorption is better." I don't know, maybe. I'm not super impressed with any of that. Then there's this whole byline of eating real food brings this stuff called nutrition with it. Protein is super important, but iron and magnesium and zinc and essential fatty acids and carotenoids, all that stuff comes for the ride when we eat a good source of animal protein in particular.

Robb: Yeah, I'm just not impressed with any of that type of stuff, and that's part of the reason why I've never really sold or advocated for stuff like that. I just don't see it being a win above and beyond just basic food. If I really had my feet held to the fire, I would be like find a good whey protein supplement and maybe do that pre or post workout or something. The keto gains guys have their keto gains coffee where you do a little bit of caffeine, you do some whey protein, some MCT, 10 or 20 grams of carbs from a dextrose source, and people kick some ass on that. They get good results.

Robb: I could make a case for that, but getting a decent quality whey protein and then cobbling together the rest of that stuff, it's like penny's serving. It has good nutrition with it, it has immune modulating benefits with the case of the whey protein and enhances glutathione production, so it enhances our antioxidant status. The closer to real food, I feel like, is probably the better option.

Nicki: Real food wins.

Robb: Sometimes.

Nicki: Let's hope. I guess the battle has not been-

Robb: That battle is not done yet, yeah.

Nicki: The battle is not over. Okay. Our last question this week is from Heather on the appendix. Hey Robb and Nicki, been following you for years. Masterclass graduate here. Met you at Paleo Effects last year and I'm proud of myself for not crying. Anyways, grateful for you both. Heather, we're grateful for you as well. I think a lot about my appendix and more specifically, the fact that I no longer have one. If we now know that the appendix houses gut bacteria, what might that mean for someone like me who no longer has one? Do I have to work extra hard at eating fermented foods and taking probiotics? I wonder if when I get sick or take an antibiotic, if it might be especially difficult for my gut flora to rebalance.

Nicki: Last year, I gave myself food poisoning, which led to months of ill side effects, starting with super loose stools for forever and ending with H. pylori which I cleared up by putting myself on a strict regimen of bone broth, digestive enzymes, apple cider vinegar, fermented foods, and not consuming liquids anywhere near meals, and eating very clean. That whole setback got me thinking more about my missing appendix. I've tried to research this topic but haven't had much luck. Is nobody else curious about this? They yank out appendices on the reg and nobody seems to wonder if it could be a bit problematic, it seems. Thanks for all you do, Heather.

Robb: Yeah, it's interesting. This is a little bit looking at ileostomies, colostomy bags, stuff like that. This is some of the stuff that circles back around to is the carnivore diet terrible because it doesn't have fiber. We have people that don't have the physical real estate to ferment fiber. You do that in the various stages of the small and large intestine, and a good number of people don't even have those things. It's interesting when you look at just simple epidemiology. People with appendectomies, do they live shorter or longer lives? They live as long as everybody else does. They don't seem to have any particularly increased rates of morbidity or mortality.

Robb: The role of the appendix does seem to be this deal where there's a reserve of gut-related bacteria that repopulate and after a case of, say, food poisoning or something like that. The thing that's really perplexing to me, though, is that we know that the gut microbiota changes constantly. It's just in constant flux. This is where I'm trying to say that there's one specific profile that is best. In my opinion, what we know about the gut is that it's really important to health. Done. The rest is just super speculative. Some people do great with fiber. Some people do better with no fiber.

Robb: Like fucking Dr. Gundry, his ads pop up all the time and it's like, "This is a tomato. Do you think it's healthy? It's not." It's just like, oh god, because lectins. I'm reactive to so many different foods and, tomatoes, I seem to do great with. I remember Dallas Hartwig wasn't particularly reactive to gluten but tomatoes would absolutely wreck him, so it's really variable. I wish I had a better answer for Heather in this thing. But I think at the end of the day, if we're sleeping well, if we're eating well, we're getting sun on our skin, those are the things to do.

Robb: These probiotics and for the most part, most of the fermented foods and the probiotics that people supplement with, these things largely act to tune the immune response within the gut, which largely makes it more amenable for other types of bacteria. It's generally not seeding. Sometimes that's the case, and this may be some of the future stuff, like being able to seed with Akkermansia and some of these strains that seem to be more tightly correlated with healthful outcomes and stuff like that. I wouldn't really worry too much about it. In our experience, folks that have an appendectomy, they frequently have some pretty good gluten sensitivity. I would really pressure test that and make sure that you're not celiac or you're not one of these folks that have some sort of an overt response to gluten. That's not the cause of appendicitis always but we've seen it a lot in folks.

Nicki: Okay. That was our fifth and final question this week. Thank you all for joining us. Remember to check out our show sponsor today. It's BLUblox. That's B-L-U B-L-O-X. Go to blubox.com/robb15 and grab some blue light glasses for better sleep, recovery, and optimal wellness. That code is ROBB15, R-O-B-B 15, for 15% off your order. Remember to if you haven't yet but if you plan on purchasing the book Sacred Cow, preordering it would be a great idea because you can get all of those preorder bonuses by going to sacredcow.info/book. Make sure you grab those before Tuesday, July 14th. Anything else, hubs?

Robb: Thank you all for your support.

Nicki: Thanks, everyone.

Robb: Hopefully, this thing goes well.

Nicki: Thanks.

Robb: Take care. Bye.

Nicki: We'll see you next time.