

Nicki: It is 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: Welcome back friends, neighbors, loved ones.

Nicki: Good morning everybody. Welcome to episode 140 of the Healthy Rebellion Radio.

Robb: You're being very hourist with that.

Nicki: Hourist, because I said good morning-

Robb: It may not be morning-

Nicki: Okay, gotcha.

Robb: ... somewhere.

Nicki: Gotcha.

Robb: It could be afternoon, it could be evening.

Nicki: It could be 3:00 AM, which it would be morning. In the middle of the night is morning, I guess, also.

Robb: Point being ...

Nicki: The point being-

Robb: You're assuming ...

Nicki: But by saying good morning, I'm letting everybody know that we are currently, in the past, when they listen to this, because that will be in the future, that we, in the past, were recording this in the morning and I wanted to greet them as such.

Robb: There's just a lot of privilege dripping out of that, is all.

Nicki: Oh goodness. You want to start off this way? I'm not sure I want to go that direction today. I just wanted to say, I just wanted ... Hello earthlings, greetings. Greetings. Good morning.

Robb: I'm sure I can find something wrong with that too.

Nicki: I'm being planetist now.

Robb: Yeah. Yep.

Nicki: Okay. Where do we kick this off?

Robb: Well, I just kicked it off of the rails completely.

Nicki: Yeah. Yeah. I don't have any upfront news or anything like that to share today. We did get a listener email, an anecdote about kind of his heart health journey, that we wanted to share. Do you want to jump into that right now?

Robb: You read these far better than I do.

Nicki: Okay. Can you scroll up? Can I have this? Can I be the scroller?

Robb: Yes, you can have the power.

Nicki: Thank you. I've got the power. Okay.

Robb: Please don't.

Nicki: This is from James, who's one of our listeners, and he wrote in to share something that he thought might be useful for our audience to hear. So he says, "Between the ages of 25 and 40, I ate a low carb diet consisting mostly of meats, eggs, olive oil, and non-starchy vegetables. During that time, my LDL, bad cholesterol, was consistently around 500 milligrams per deciliter, shockingly high by almost anyone's standards. But I did not worry about my high LDL because I was and am lean and healthy, exercise regularly and am not diabetic, I have normal blood pressure and low inflammatory markers. All the same, I thought it would be prudent to get a coronary calcium score, just to see if plaque was building up in my arteries. Well, it turns out it was. I had a score of 28. This is actually shockingly high because most people under the age of 50 have a score of zero. Any score over zero at my age was a clear indication that plaque has been building up in my arteries at an extremely high rate.

Upon seeing the coronary calcium score and high LDL, my primary care physician and my lipidologist told me I needed to be on a cocktail of statins for the rest of my life. I didn't like the idea of taking statins, so I embarked on some dietary experimentation. Over the past few months, I replaced half of my protein with an equal amount of carbohydrate, mostly in the form of potatoes. After about a month, I had decreased my LDL to 350 milligrams per deciliter, and just last week, my LDL was measure measured as 150 milligrams per deciliter. More importantly, my apoB, which is actually a better indicator of heart disease than LDL, was in the middle of the normal reference range. Long story short, my N equals one experiment leads me to believe that high LDL or apoB is indeed a problem, even if one follows paleo diet and exercise principles. And for some

people a very simple way to lower LDL and apoB is to simply add in some carbohydrates to their diet."

Robb: So we've talked ... one, thank you, James, for sharing this. We've shared similar anecdotes, but this is just one of these ongoing topics, and I guess the story is never really done until they literally throw dirt on a given individual and we know literally the postmortem on him or her or the.

Nicki: Dude. It's too early for that crap.

Robb: It's never too early for it. I think it's crystal clear that somebody with elevated lipoproteins and confounding other metabolic issues, high blood pressure, altered glycemic response, those sorts of things, systemic inflammatory markers elevated, that's a higher risk profile than if you don't have all that stuff up. But as much as I try to wrap my head around this idea that so long as we don't have any other injurious activity going on, that lipoproteins are completely independent of atherosclerotic cardiovascular disease progression risk, I just can't buy that. I definitely get the vascular endothelial damage model. And this is where I think it was Eric Leaf, who's a super sharp guy, I've thought about this in the past, but he was like, "Well, what about this?" He kind of articulated better than I did. Every time our heart beats, arguably, to some degree, we get a mild little bit of damage to the glycocalyx in our arterial walls.

Now, under most circumstances or under certain circumstances, that little bit of damage may be meaningless in the grand scheme of things from a cardiovascular disease perspective, because we respond to it in a way that doesn't involve the development of atherosclerotic plaquing, whether that is a blood clot, if you kind of come out of the Malcolm Kendrick kind of camp, or more of maybe the Peter Rutia LDL particles, apoB particles getting stuck in the intimal wall and beginning this process of foam cell enlargement and all that type of stuff. But what's intriguing is under most circumstances, folks that see this, this lean mass hyper responder crowd and other folks, and just as an aside, I've been working on a piece with this. If you look at what blood lipids do for people who are anorexic, it's pretty interesting, their cholesterol levels and lipoproteins go to the moon, it's kind of counterintuitive.

It's a stress response, and part of that stress response is thought to be at least marginally related to some subclinical hypothyroid. So the thyroid is downregulated enough that the individuals see some really dramatic increases in cholesterol and lipoproteins, not necessarily so much that we see the person cold, lethargic, although those things can certainly happen. So in this lean mass hyper responder camp, the theory there is that the elevated lipoproteins are there to provide additional energy for the body, which I have pushed back on it a bit and I'm still kind of surprised that nobody has just done a basic analysis of how much energy could these lipoproteins provide relative to non-esterified fatty acids and triglycerides and even glucose that are available, and I'm kind of in theory working on that, but never quite have the time to bring that one home.

But the whole thing just looks similar to me, like when you look at the stress response for anorexia and then what occurs in at least some people on very low carb diets, low

carb plus fasting, fasting too long, it ends up looking really similar. You have these people that are lean, otherwise metabolically healthy, and then they have these very high lipoproteins and cholesterol levels, and I think also they have a relatively heightened risk of cardiovascular disease. Again, some people push back on that, to just beat the band. But what's interesting is by and large, there's a group of people that if they swap out significant portions of their saturated fat intake, particularly dairy, for monounsaturated fats, then they tend to see a decrease in their lipoprotein levels and then just a modest addition of carbs, 50, 75, 100 grams of carbs a day for these folks, and they will see their lipoproteins cut more than in half. In this case, it was nearly five X, three X for sure.

So just throwing that out there. Nobody would be happier in the world if the story was true, that as long as you keep insulin levels low, your lipoprotein number doesn't matter. I was of that opinion for quite some time, and over the course of time, I have modified that opinion. I hope, frankly, I'm wrong about it because if that is the case, then my recommendation to add a little bit of starch or a little bit of monounsaturated fat in lieu of saturated fat from dairy in particular, doesn't really matter, you win either way. If you feel good, look, feel, perform good either way, then that would be fine, but I just think that there is some sort of a heightened risk there, and I think it's worthwhile to let people know that.

Nicki: Mm-hmm. Thankfully, it seems that James tolerates the amount of carbohydrate that he's adding back. Well, I'm thinking about you, if you had to swap out half of your protein for carbs, you would be a giant mess.

Robb: Yeah. And that would be a mess for me, from the glycemic control perspective.

Nicki: And it goes back to the N equals one, right?

Robb: Yeah.

Nicki: Clearly this is working for James, which is awesome, but then I'm thinking about you.

Robb: I've seen changes. When we moved from New Mexico to Reno, I was very much in the Paul Jaminet safe starch. I was eating-

Nicki: Eating potato starch.

Robb: Eating the potato starch, sweet potatoes and stuff like that, but I was also eating butter because he's a fan of butter also. I was eating a fair amount of it. My lipoproteins were remarkably high, 2,700, something like that when we first got them tested at Specialty Health, and then I dropped the butter, did some other things, and then I think I got down to 1,400, 1,200, something like that, pretty quickly. So I've been able to tweak and modify that stuff based off of some fairly simple dietary shifts. And it is, at the end of the day, for me, if I'm going to die from something, I think a heart attack all at once is preferable to irritating my ulcerative colitis or getting diabetes and slowly going blind and peripheral neuropathy and all the rest of this stuff, at the end of the day. And

there's always the potential of doing a little bit of statin therapy or something like that, very low dose and possibly get some benefit there, but it still is super complex, it's very, very confusing to me. But yeah, just wanted to share that.

Nicki: This is why we do N equals one experiments.

Robb: Yeah. Yep.

Nicki: Yeah, thank you, James, for sending that in. Okay, news topic time. What do you have for us for this week's new's topic?

Robb: Somewhat related to what we were just talking about, this one is medium chain fatty acid decanoic acid reduces oxidative stress levels in neuroblastoma cells. So this is just looking at Petri dish level, in vitro, the addition of these medium chain triglycerides that can get converted into ketones, providing a really remarkable buffer for oxidative stress in different neurological cell lines. What's kind of cool about this is kind of looping back into the piece that we were just looking at, if you get some benefit or need some upside from a low carb diet, but you have some challenges with that, let's say lipoproteins go crazy and whatnot. What a number of people find that they can do is you put in a modest amount of starch, 50 grams starch or something like that, maybe up to 100 grams, but then each meal you introduce a tablespoon or more, if tolerated, of an enriched like C8 MCT oil, and you get an appreciable bump in ketones bodies.

Chris Masterjohn has done some pretty interesting work or highlighted some interesting work where doing a mixed meal of some starch and MCT early in the day, with protein, ends up reducing total caloric intake later in the day because people are generally less hungry. So there's some interesting stuff there. So I just kind of wanted to point this one out on the heels of talking about altering diet, so that we can alter lipoproteins in a way that maybe is more favorable for health, there are still other alternatives for potentially getting some of the benefits of a ketogenic state.

Nicki: Cool. Excellent. Let's see. Moving on to our sponsor. As you all know, the Healthy Rebellion Radio is sponsored by our salty AF electrolyte company, LMNT. If you eat low carb or keto, if you're an athlete, if you have muscle cramps, if you have an active job or a work in a hot or humid environment, if you're a breastfeeding mom, if you have pots, if you do winter sports, skiing, snowboarding, cross-country, or if you're just feeling a little tired and need a natural energy boost without the caffeine, LMNT is for you. And you can buy three boxes and get the fourth box free with our insider bundle at [drinklmnt.com/robb](https://drinklmnt.com/robb). That's [drinklmnt.com/robb](https://drinklmnt.com/robb).

Robb: Very nicely done.

Nicki: Thank you. Okay, we've got three questions today. The first one from Brittany on exercise and IBD, irritable bowel disease. "Hi, Robb and Nicki, absolutely love your podcast and have been listening to you for years. My question is about what your recommended minimum dose of exercise would be for a 38-year-old lean female with IBD. I'm not looking to lose or gain, just maintain the muscle mass I currently have. I

have a less common type of IBD called microscopic colitis. Despite my meat-based paleo diet, my flares tend to come on randomly and last for weeks to months at a time. During this time, I tend to remain exhausted and depleted. I want to maintain my muscle mass, but want and need to expend the least amount of energy possible to be able to function as a full-time nurse practitioner with three young children.

I currently strength train two times a week and walk a few times a week. I try to get some zone two cardio in when I'm not in a flare. Even the strength training feels like a lot though when my symptoms are at their worst, and sometimes I feel inflamed for several days following a more intense or heavy lifting day. Any advice would be much appreciated."

Robb: Man, I feel for you, Brittany, because I feel like we are similar in this regard. I don't think my flares have lasted as long when things pop up, but once or twice, like when we first moved to Texas and I thought I maybe caught something while swimming, I was a mess for four months and every moment was exhausting, trying to exercise was more exhausting. As always, I think looking at dietary features as closely as you can, I'm sure you've probably done this, but just being aware of any potential dietary inputs that worsen the situation. For me, any type of greenery, uncooked is worse than cooked and cooked really isn't all that great either, leading up to, and then in these flares, a more legit carnivore type diet seems to work much, much better for me. It is a pain in the ass for me psychologically to do that because goddammit, sometimes you just want a little something else besides steak-

Nicki: If you do a salad, you're wrecked. If you do ...

Robb: When I'm in one of these states, yeah.

Nicki: Exactly. And so Brittany says she's eating meat-based paleo, but frequently folks eating a paleo diet do include a lot of greens, and so if that's not something that you've tried, Brittany, might be a good one to look at.

Robb: Squash, greens, maybe even fruit, you might try pulling that stuff out. I know it sounds a little crazy and again, it's frustrating for me because I am such the poster child that should be fully carnivore and just thriving on it and everything, and I definitely have migrated closer to that, but I get kind of crazy just eating the same ... if I had to do what Jordan Peterson does, hot water, cold water ...

Nicki: Bubbly water.

Robb: Of varying degrees and then a couple of cuts of steak, I guess I would nut up and do it, but it's really unappealing to me. And so I possibly could be healthier, but also, it's tough, but I would look into the food first. And then beyond that, Brittany, I would recommend maybe getting hooked up with a Morpheus platform for heart rate variability training and also to just get a sense so you can track what your heart rate variability score is day to day, so you can see what your readiness profile is. And for both the cardio and the strength training, it gives you kind of a heart rate in an intensity

range, if you wear the chest strap to monitor this stuff, and I think that that could be a really solid objective way to stay within the lane lines, to keep you motoring long better. And we could, I guess, put a link to the Morpheus platform.

Joel Jameson created this, I've found huge success with it and it's not perfect, there's a little bit of dividing of the tea leaves to understand exactly. We've had days where we seemingly sleep really well and we have completely shite recovery, and then other days, where recovery looks good and we're like, "How the fuck did that happen?" Because we were woken up by the cat six times or something like that. But I do generally think that it's valuable, it gives you some lane lines to operate within, from the volume in the intensity perspective, and it's objective feedback so that you can see, okay, I did this workout yesterday and today I'm tanked. You probably feel that, but then you see it objectively and you can use that to hone in on the right dose for any given activity that you're doing.

Nicki: And maybe your lifting days aren't super intense or super heavy, they're just maintenance mode, so you're not going for max efforts or even close to that. It's just sort of like, I'm going to do this reasonable weight and I'm going to get the reps in and I'm done.

Robb: For a long time, what I've had to do and what we've generally done to be able to do jujitsu and strength train at a reasonably decent clip, is my strength training activities, I know I could always do more, I'm never exhausted from it. I never leave that part of the gym just being like, "Oh my God, that was a barn burner." If I do that, then I've dug a deep enough hole that I can't do all the other stuff, for sure.

Nicki: Cool. All right. Our next question is from Neil, on recovering from umbilical hernia. "Hi, Robb and Nicki, I would like to start by thanking you for the great info you give out, while managing to keep it entertaining for all. I recently just had open umbilical hernia surgery, no mesh, just stitched. I practiced BJJ two to three times a week and strength train about twice a week. The surgeon advised to start to ease back into training at about six weeks. I was hoping for any advice on how you would structure your training to ease back in and any advice on exercises to help strengthen and protect that area." This is Neil from the UK.

Robb: Neil, maybe we'll work backwards on the strengthen and protect the area. I think starting off with static hold type activities first, like the hollow rock position or just a hollow position, and interestingly, lots of counter movement, so the Superman's, back extensions, glute bridges, those sorts of things. All of these will engage your trunk musculature, but in a way that is stabilizing the midline, which I think is going to be really, really important. And also, even though that can load the area pretty significantly, and clearly ease into that, make sure that you're cleared with your doctor before you start getting into that stuff. And you can always do those activities at varying degrees of intensity, you don't have to go full bore on it straight out of the gate.

But I would focus on those sorts of things before doing kind of trunk flexion type activity. It seems like that would probably be a little bit more demanding and honestly not as specific for what you generally need from jujitsu. And then when you get back

into jujitsu, if it's at all possible, if you could just do positional drilling and work from the top, so guard passing, knee on belly top, mount top, cross side top.

Nicki: North south top.

Robb: North south top, maybe working from-

Nicki: Half guard top, all the tops.

Robb: ... from back where you are in control of back, although being ... Yeah, yeah, that makes sense. But all of that stuff where ... one thing is doing the positional drilling, let's just say that you would have a drill where you are working two or three pinning combinations from cross side top and maybe you have access to two or three submissions from cross side top, and then your partner is basically working to get out of that. And the partner starts off at maybe 40 or 50% resistance and out of 10 reps, you are successful eight of those reps, and maybe that's the first couple of minutes of a five or six-minute drilling session, but then the first two minutes is 50% resistance on his or her part, the next two minutes is 60, 70%, and then the last couple of minutes is maybe like 85, 90% resistance, something like that. So this graded resistance.

But instead of just live rolling, if you can do positional drilling, and when I say drilling, a lot of people think drilling is just doing a programmed set of movements again and again. That, to me, is not drilling. That is just movement introduction and it's good, but it becomes a dead end super quickly with skill development and that can maybe be the even less randomized thing to do before the positional drilling, if you need even a little bit more safety. I know I'm blabbering on here, but the benefit of the positional drilling versus live rolling, is that you have some really specific lane lines on what you're doing.

Nicki: What you're doing and also what your partner's doing, and you're going to find a partner that's like ... it also kind of depends on the type of gym you're in because sometimes it's just sort of open mat, I'm going to ...

Robb: Smash.

Nicki: ... I'm going to win, smash. And so you need to find a partner that's willing to work the bottom, and that's a great spot to work from because we all get there a lot. And so find somebody that's willing to be on the bottom and just drill escapes and you're drilling the top position and once you submit or there's a reversal, then you stop and start again. And you just are able to get a lot of really quality reps and all of the coaches we most respect say that they wish that instead of open mat, that their students did more of this positional drilling.

Robb: Like 90% of the open mat should be this positional drilling. If you really want to get good, people like Gordon Ryan, the best of the best recommend this, all too few of us actually do what the best recommend though. But this would protect you, this would keep things really ... again, I think it's the random movement getting put into a-



Nicki: Scrambles, you don't want to get ... like you're going with somebody who's significantly bigger and heavier than you and it's kind of ... until you feel, until you've been back at it, you've been out for six weeks and now until you've been back in for probably at least six weeks ...

Robb: It's going to feel a little off, yeah.

Nicki: I would kind of do what you can do to train in this kind of controlled fashion. A, you're going to get really good at those positions that you drill and you're going to stay safe and yeah, I think it's a great way to ramp back up.

Robb: Yep, agreed.

Nicki: Okay, final question from Justin on regular eggs. "Hi Robb and Nicki, my wife and I are longtime followers of yours. We share your last name and in our house, you're referred to as Uncle Robb, even to our kids. I think that's so funny. We respect the hell of you and Nicki's opinions on things, so we'd love to get your thoughts on something that came up recently. We are a Coast Guard family, so not only are we moving frequently every three to four years, but our budget changes too. We recently moved to Kodiak, Alaska and it's no secret, it's expensive here and availability of some foods, produce mostly, but also eggs, is hit or miss at best. Don't worry, we've got all the game meat and salmon though.

We took sacred cow to heart as permission to simply buy what we could afford, versus stretching ourselves thin for grass fed. It's been a relief for our budget, so thank you. Our question is about eggs. We consume eggs daily, not eating them for breakfast isn't a habit we are willing to break. Does the same, quote, "best you can afford," unquote, apply to eggs too, or should we be springing for pasture raised, cage-free, organic, et cetera, is a regular egg as nutritionally dense as a fancy one?

Robb: This is a really good question, and Diana really deserves a big hat tip for this because she kind of ferreted out these differences, and when we look at the nutritional difference between conventional meat and pastured meat, say beef, there's not that big of a difference. If we look at the nutritional profile of conventional dairy versus pastured dairy, there's a rather sizable difference in vitamin content and essential fatty acids and whatnot, and the same deal for eggs. Now, all of that said, it doesn't mean that the conventional stuff is low in nutrition. This is what's kind of funny, people kind of freak out and they're like, "Oh, eggs and conventional dairy are not that nutritious. No, they're still highly nutritious, especially compared to just about any type of plant material that one could eat, because what nutrition they have is remarkably bioavailable. So it kind of becomes this question of, okay, if you're not going to eat the conventional eggs because of a cost consideration, what else are you going to eat?

And they're super rich in choline, the things that they tend to be less rich in are omega-3 fats, vitamin A, some of these beta carotene different mixed carotinoids and whatnot, and then it gets a little more ... those are the known to be beneficial to health. A lot of these other plant materials that get incorporated in the eggs, they may very well be

beneficial for health, but they're not vitamins, they're not vital to health. You're not going to die without them or certainly not immediately. So this could be one of those situations where when you get a chance to get some better quality eggs, if you know somebody locally that produces them in the warmer months, then maybe take advantage of that. Maybe this is something that you tackle on more of a seasonal perspective. I do think in those areas, because the long days, there are probably people who have a lot of chickens and produce a lot of eggs, and so maybe during the warmer months, you do the better quality eggs, and then during the colder months, when there's less availability, you go more like Costco and conventional.

Nicki: They're in Alaska and getting a lot of game meat and salmon, so their omega-3 situation isn't ...

Robb: Probably not.

Nicki: Yeah. And I can only imagine, eggs are super expensive in the lower 48, so I can only imagine how expensive they are.

Robb: Yeah, this probably came in before the egg-pocalypse that has befallen us.

Nicki: I don't know, yeah. So it sounds like yes, the pasture raised cage-free do have more nutrition than a conventional egg, but conventional eggs still have a ton of nutrition.

Robb: Correct.

Nicki: So Justin, I think you can ...

Robb: Uncle Robb says, eat whatever eggs you can track down and make sense for you.

Nicki: There you go. Okay. I think that's a wrap for this one.

Robb: See, and if you had taken my name, you could have been Aunt Nicki, but no, no, it's just Uncle Robb.

Nicki: Just Uncle Robb. That's all right. That's all right. I'm used to being on the side.

Robb: You're still ready to pull the rip cord.

Nicki: No. All right, folks, we will end this before it just keeps spiraling down. Please check out our show sponsor at [drinkLMNT.com/robb](https://drinkLMNT.com/robb) for all your electrolyte needs. Again, that link is [drinklmnt.com/robb](https://drinklmnt.com/robb). Have a fabulous weekend. It's already February, I can't believe it.

Robb: It'll be the holidays before we know it.

Nicki: Oh yeah. Time moves more quickly when you are ...

Robb: Nearing the end.

Nicki: ... nearing the end. Yes, yes. All right, folks, we will see you next week.

Robb: Bye everybody.