

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 1 million people liberate themselves from the sick care system. You're listening to The Healthy Rebellion Radio.

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Robb: Welcome back friends, neighbors, loved ones.

Nicki: Are we live?

Robb: I think we're live.

Nicki: Okay, wow.

Robb: I navigated away from the window that was showing the countdown.

Nicki: Okay. Hello everybody. This is episode 183 of The Healthy Rebellion Radio. And we're back and I'm very pleased to share that we did do the rice experiment and in less than a week, the hate jar of rice has mold in it and the love jar of rice has no mold.

Robb: And we're going to repeat this three to five more times and we'll see if we get consistency in process.

Nicki: As soon as I saw the mold growing in the hate jar I'm like, "Look, it's working. I've been vindicated." And he's like, "It's not actually. We needed controls on each of them. You should have had four jars for the hate and four jars for the love because this could be an anomaly."

Robb: And I'm pretty sure that what Nicki did was go out and pet the chickens and scoop up some cat turds-

Nicki: I did not.

Robb: ...and then she swizzled her fingers inside.

Nicki: You think I sabotaged the experiment?

Robb: I'm absolutely certain you did.

Nicki: No, I absolutely did not.

Robb: You are one of the cheating Violettis. It is your family moniker to cheat.

Nicki: I don't cheat. No, I just happen to be really good at games. So I would like to try the water version of the experiment, but I've yet to find or prioritize finding any little Petri dishes that we could freeze the water in so that then we could look at it.

Robb: We used to have a bunch of Petri dishes in Zoey's closet. And given the perpetual state of Zoey's closet being a disaster, I wouldn't be surprised if it's still there.

Nicki: That was before we moved. I don't know if we still have that.

Robb: They might still be there.

Nicki: Okay, I'll dig. But anyway, as far as the rice experiment goes, and if you don't know what we're talking about, the previous episode we discussed the power of-

Robb: Bunch of fucking woo.

Nicki: ...the power of words on matter. And Robb and I are not seeing eye to eye on this.

Robb: I'm just waiting for Nicki to start saging the house and having crystals in the front door.

Nicki: Hey, I have saged the house before. I've had sage. I like sage. Why are you looking at me like that?

Robb: I have so many thoughts. I'm going to keep them all to myself.

Nicki: Okay. All right. Oh, and you've got a nice news topic here for us on vitamin D. When I came down here to record this he had another screen open and he's writing, I think it's a Substack piece, yeah?

Robb: It'll probably just go on X.

Nicki: Just on X? Okay.

Robb: Yeah.

Nicki: Anyway, it had to do with vitamin D also.

Robb: Yeah. This one is vitamin D status is associated with in-hospital mortality and mechanical ventilation, a cohort of COVID-19 hospitalized patients. This was done by the Mayo Clinic. It was released in February of 2021. In the short story on this, and people probably saw this, but I feel like this information kind of

disappears into history and we kind of forget about these things. But the long and short is that folks in this study who had a vitamin D status below 30 nanograms per milliliter had a markedly higher tendency towards hospitalization, ICU, ventilation, and death. People with vitamin D status above 30, and it trended upwards with higher vitamin D status, trended towards zero with all those things.

And we didn't know precisely this story right at the beginning of COVID, but we had decades of literature showing that adequate vitamin D status dramatically improved influenza outcomes. If you're a big fan of vaccination, we knew for decades that if you wanted generally vaccines to work, influenza vaccines included, vitamin D status is a critical feature of this. Low vitamin D status in any vaccine that you want to look at, if you have low vitamin D, the likelihood of that vaccine working the way that you want it to work and not either producing inadequate results or collateral damage, much, much worse.

So this vitamin D thing was some of the lowest hanging fruit you could imagine. And I was just doing a little bit of poking around and it is interesting how outlets are now expunging their anti vitamin D status off the internet because I had taken some notes on different places like Vox, MSNBC and stuff like that where they were castigating people. That, "We don't know what the story is on this." And the downside of a robust public health move like, "Hey, we don't know for sure." But in similar viruses, we know that outcomes are dramatically improved with adequate vitamin D status. Why don't we get everybody in the country, get their D levels up, make this kind of like a sending men to the moon type of thing. And if it had had zero efficacy on COVID, the downside would've been decreased issues with other transmissible respiratory viruses, likely improvements in cardiovascular disease, autoimmune disease, depression, and on and on and on.

And we have great research on that. There was zero fucking downside to this. And it was and is trench fucking warfare to get this stuff out there and discuss it and make it kind of a primary feature. And I remember some of the pushback that people had was that if people felt like vitamin D was going to protect them, that they would be less likely to stay home and hunker in. And so they were worried about this messaging getting out. But the thing is that with adequate vitamin D, they might not have fucking died. They might not have ended up in the hospital. Like, just on and on and on. So it's kind of funny. I go through periods of just needing to stick my head in the sand around COVID because if I get in and start revisiting everything around it, I just want to do horrible things.

But I think it's worth every once in a while, a little spelunking into the history of COVID and looking at some of these things because we're told all the time that another one's on the way and we're going to face other stuff. And also there's just this general understanding, which I became aware of in the book, the fantastic book, still one of my favorite books, Protein Power Lifeplan, published in

1999, I think made this huge case for vitamin D, getting adequate sunlight, like preferentially getting vitamin D from sunlight. They even made the case that, "Go to a tanning booth, be careful. Don't turn yourself into a leather handbag." But Michael Mary Eades, the doctors Eades, were so far ahead of the curve on so many things and really deserve a huge hat tip in that regard. And also, this is some of this stuff that is very controllable. It doesn't really require behavior change.

Nicki: Easy to implement, inexpensive.

Robb: It's easy, it's cheap, and on and on. So please do check that out. Please do share it around. Please do roll up a newspaper and paddle some people's asses with it.

Nicki: And check your vitamin D status and make sure that it's adequate.

Robb: And check your vitamin D status, yeah. What was the outfit that you were ordering it in?

Nicki: It's called Grassroots Health-

Robb: That's right.

Nicki: ...and I can put a link. Make a note. I'll put a link to that in the show notes. It's a great outfit to easily test your vitamin D. They send you a little home test kit, you prick your finger, mail it back in, and then you get your results in a few weeks after that. So just making a note.

Robb: Yeah, yeah. And maybe next week we'll dig in a little bit. Like, I've been listening to a DarkHorse podcast where Bret is interviewing and discussing some of the COVID knock-on effects particularly of the vaccine with a pathologist.

Nicki: Robb has been going... steam has been coming out of his ears. He ran into town for an errand, and when he's driving is when he listens to podcasts and he comes back and he's just like fuming.

Robb: And I guess one of the interesting things with this still is, and it's weird for me, we live in this bifurcated world where there are folks that absolutely insist there are no negative consequences of the vaccines. That it was all a net positive, all a net win. And then we have another group of folks that fortunately or unfortunately I find myself siding with them, that these vaccines may prove to be one of the most horrific things that's ever been released on humanity. And I started off this whole thing early on from the position that there was probably going to be a risk-reward story where some people would be well-served with the vaccines, other people would likely not. Particularly the young. And then it became pretty obvious that males are more at risk for pericarditis, myocarditis and whatnot.

I know Aseem Malhotra came up with the rather controversial position that there was no net benefit to the vaccines. That given the severity of their complications, that they were absolutely not a net benefit for anyone really under any circumstance. And I guess something that's interesting to me is those two worlds coexist, and it's fascinating for me to navigate through that because I really don't want to be the idiot that is tin foil hatted to the tune of like a Texas 10 gallon hat. But as time goes on, the case for supporting what was done to us it becomes more and more difficult to find any grace for what was done and how people went about it.

Nicki: And how there's no consequences or accountability for anyone from Fauci to Ralph Baric to Peter Daszak, all these people at the NIH and EcoHealth Alliance. It's pretty remarkable.

Robb: Okay, so maybe we'll dig into that next week. Maybe I will have died of an aneurysm over it before then or maybe exercise my demons. We'll see.

Nicki: Let's hope not.

Robb: Yeah.

Nicki: All right. The Healthy Rebellion Radio is sponsored by our salty AF electrolyte company LMNT. Spring is here, which means temperatures are trending up in many places. And if you're out in the sun hiking or working up a sweat, if it's humid where you are, make sure you're staying salty and getting the electrolytes you need. Same goes for if you eat low-carb or keto, if you're an athlete, if you get muscle cramps, if you're a breastfeeding mom, if you have pots, or even if you're just feeling a little tired and need a natural energy boost without the caffeine, LMNT is for you. You can buy three boxes and get the fourth box free at [drinklmnt.com/robb](https://drinklmnt.com/robb). That's [drinklmnt.com/robb](https://drinklmnt.com/robb).

Robb: Outstanding.

Nicki: Three questions today. The first one from Karen on tinnitus. Tinnitus, tinnitus, tinnitus.

Robb: Tinnitus.

Nicki: Yeah. She says, "Hello. Thanks to you both for all you are doing. I especially love your updates on homeschooling. Please keep them coming when you care to share. Quick statement slash question. Tinnitus is not fun. Do you have any thoughts on dealing with it? Would LMNT help? I already have all my health pillars checked and I'm doing great at 61 years of age, but this ringing is getting gradually louder and I want to turn the volume down on it, so to speak. Thank you."

Robb: Man, this is a tough one. Nicki's dad has some tinnitus that is bedeviling

for him. I've seen some efficacy and I put a link in the show notes here around Ginkgo Biloba extract, but it's really hit-and-miss. It's not consistent. Some people seem to benefit from it, others don't. Ginkgo is kind of a vasodilator. I think a lot of this has to do with the mechanism of where the tinnitus is coming from. Some people, it seems like it's a vascular-mediated issue. Some people, it's from years of hearing damage like your dad.

Nicki: My dad worked on heavy equipment and was around a lot of rock and roll music, being in a band, to working in heavy equipment.

Robb: Yeah. And I know that there's also some of the transcranial ultrasound has been applied to this. There are things out there that can be helpful. She had a question if LMNT would help, it might.

Nicki: I don't think my dad has noticed any... he drinks element. I don't think he's noticed any improvement there.

Robb: I want to selfishly sell people on LMNT at every turn. But if you had some sort of overt electrolyte imbalance that was driving a vascular response that was contributing to this, then maybe. But it just seems unlikely. But you might try the Ginkgo Biloba extract. The paper mentions the dosage on that. There's a standardized extract that people use. I would put that at probably a 30 or 40% likelihood of getting any benefit from it. If you do some poking around, there's some transcranial ultrasound which I'm looking at for the essential tremor and then they're using it for some other kind of neurological type conditions which if it's from kind of cochlear damage, you could kind of make the case that this is maybe a neurological based kind of phenomena.

You can get out there in the weeds and maybe make the case that like a ketogenic diet, a little bit of intermittent fasting, some high intensity exercise that could drive up some BDNF, brain derived neurotropic factor could be beneficial. It's beneficial for all kinds of stuff. But this is just really getting out in the weeds. It's stuff again that I think would improve our quality of life today. It's probably good for us to at least do a few intermittent toe dips into ketosis, and I think a little spattering of high intensity interval type training is fantastic for folks. But this is really reaching. It's a guess completely.

Nicki: I don't think dad has tried the Ginkgo Biloba yet.

Robb: Yeah, I'm not sure. Since he edits this then he might end up giving it a shot.

Nicki: Yes. So yeah, I'll have him try that. And Karen, if you try it and if you get any relief, please let us know. I know it's not fun. Let's see. Next question from Steve on hydrogen water. "Hi, Robb and Nicki, aka hubs and wife. First of all, thank you for all that you do. You're making a difference. The health influencers have been talking a lot about hydrogen water as of late. I looked into it a bit and it looks like there may be some benefits, but would like your thoughts. The highly

touted machines seem to be in the two to \$4,000 range, while the smaller portable ones are much less expensive. I'm doubtful of the cheaper ones. We have a child, 19 years old who is dealing with much fatigue, brain fog, etc."

"He lifts heavy, probably overdoes it seven days a week and goes hard as well as overeats. He's a hard gainer. So I'm guessing his inflammation levels are high and maybe mitochondrial damage issues. He also has horrible sleep habits and seems his circadian rhythm is off. We've been doing everything we can to figure it out and try to get him to a better place. MDs, functional medicine practitioners, acupuncturists, etc. Blood tests came back normal, but maybe there are some markers we should be checking that weren't tested. Also started a mono keto diet, mostly carnivore to see if that helps. With all that said, I was wondering if the hydrogen water is something we should explore. If so, are there any brands you would recommend?"

Robb: Sorry folks, I thought I had all of this turned off. It's interesting. The hydrogen water topic is one of those things that I had kind of poo-pooed, and then it did something crazy and carved off a half hour, 45 minutes to really dig into it. And it looks like there might be some efficacy to it. It does appear that the hydrogen water can function as an antioxidant. It may have some other benefits, even to the tune of improving liver detox and improving lipoprotein status and whatnot. But Steve, this could be helpful but you really hit on the stuff that when I was first thinking about what to comment on this, it seems like something like the hydrogen water is what you do after you're eating a minimally processed whole food diet. You've found the carb tolerance that is appropriate to you. You're lifting some weights. Maybe not too much, which could be happening here.

And then that circadian biology piece, it's tough for teenagers and although your son is 19, he's still technically a teenager. I think that the altered circadian biology extends up into at least the early twenties. But there's a reality that young folks, their circadian biology is such that they tend to go to bed later, wake up later. And that's just kind of like the nature of the beast. There are things that they can do that can improve that including getting outside early, being outside as much and as often as they can to try to get normal circadian biology.

Nicki: Not being on a screen late at night, which is really hard for a teenager.

Robb: Not being on a screen later in the evening. Yeah, it's super difficult maintaining social life and all that type of stuff. But I feel like if you guys are flushed with cash and you just want to give this thing a shot, I think that's fine. But it's all this other stuff that I really think is going to be where the huge return on investment is going to be by hook or by crook, trying to figure out a better sleep schedule, more circadian entrainment.

Nicki: Also outside, get him outside as much as possible once he wakes up in the morning. Trying to minimize screen time in the evening which as Robb mentioned, teenagers naturally stay up later. So it's like, "What is he doing late at

night?" And in today's day and age people are on their phone or on the computer or TV or whatever. So it's definitely tricky. It sounds like he's game to be doing all this stuff. He's really wanting to get to the bottom of it if he's training, he's eating well, all of this. So that's a positive sign. Any vitamin D, any kind of supplement type stuff come to mind here that could be...

Robb: Again, circling back to what we were just talking about, vitamin D status is a great one to think about. That ends up playing into our normal sleep function. If you don't have enough vitamin D and enough magnesium and enough calcium, all those things go into producing melatonin and GABA and down regulating the sympathetic nervous system so you can go into a parasympathetic state and actually sleep and rest. And so all those things are important. So like, getting vitamin D status checked out. Just real quick, just as an aside Steve, I don't know where you live. If you guys live in Phoenix and your son gets out and gets a tan most of the year, then this probably doesn't apply.

Nicki: He's in Seattle.

Robb: Oh, he's in Seattle.

Nicki: He says Steve from Seattle.

Robb: Okay, Steve from Seattle. Before you bought a hydrogen generating thing, I would get a Sperti vitamin D lamp and get the one that's oriented towards vitamin D, not getting a tan. And I would have your son use that. Their recommendation is every other day. I can't imagine why it's not okay to use it daily as you habituate to it because-

Nicki: Like start small amounts of time and then slowly grow it.

Robb: Small amounts and you build up to it. And maybe I could do a short piece on that and kind of what I've done because we had the great opportunity to go to Mexico recently. And my God, how much better I felt and I didn't do heroic stints in the sun. We were out a fair amount, but usually you would hit a point where you could make vitamin D. I was checking it on my dminder app and I'd do like 20 minutes front, 20 minutes back and then it was like a hat and long sleeve shirts the rest of the day. And holy shit, I felt better. And I had been doing the Sperti lamp kind of every other day, but trending towards every day. And then I even started doing it a little bit longer than what they recommend. And so I'm going outside of the product recommendations, and I feel better. And it's like maybe I end up getting skin cancer, may end up dying from that and that would be a bummer.

But I got to tell you, when the depression and stuff, the brain fog and all that hits me, it's so powerful that like... it's bad. It's bad. I get really bad. I'll have suicidal ideation all fucking day and it sucks. I put a good face on it and I keep troopering along, but goddamn it's miserable. And so it's really that thing where it's like there's trade-offs with everything, but when I get that light on my person



I am an entirely different individual. I'm way more optimistic and I'm not thinking about killing myself every minute, which is kind of a bonus. So yeah, if you guys were noodling on this stuff, I would put money into a vitamin D lamp before I would the hydrogen water personally.

Nicki: And then the thing that popped into my head since he's training and Steve mentions maybe his inflammation levels are high because he goes hard and he overdoes it seven days a week, like getting that Morpheus app and testing his heart rate variability and his recovery. And so in the morning he sees, "Oh gosh, I'm only 60% recovered." It will help inform him how hard to push on a given day so he's not just digging himself into a deeper pit.

Robb: That's a great recommendation. I have zero financial ties to any of this stuff. So just the Morpheus app has been so valuable for me for gauging how hard I can train. And what's interesting for me is that I had so blown myself out doing CrossFit that for years then I was afraid to really get after it at all. And so this thing has actually stepped up my training a little bit, and so I could make the case for Morpheus and then I could also make the case for tracking down a good coach. Maybe you train with Sarah and Grayson or find somebody else that you want to do some training with, and then that way he's got an objective coach. It's like today you go hard, tomorrow you go medium, the next day you go easy and you cycle through that.

Because I remember when I was training for power lifting and mainly stewarding my own training, I just went balls out every day and I made no progress on it. And then when I started training with two guys that had won world championships in power lifting, I was kind of shocked at how much easier the training was like nine days out of 10. But you can't go crazy every day and depending on your goals and whatnot, you have to periodize and modify things. But I got really strong and made a lot of progress when somebody else took control of my training and monitored it instead of me just grinding myself down to a nub.

So I would lean towards the vitamin D lamp over the hydrogen water. If you want to do the hydrogen water, that's fine. But I feel like that's so far down the list of other things, particularly given the fact that you live in Seattle. And then I would think about the Morpheus app. And then I would also consider tracking down some outside coaching. John Welbourn has platforms as part of Power Athlete that you could follow, and I really believe in those guys. I like The Kneesovertoeguy and I love Sarah and Grayson if you want some more directly curated training. And we're going to have links to pretty much all that stuff in the show notes.

Nicki: Yes, I will link to it all. I'm making notes as Robb jabbers here. Okay, let's see here. Last question this week is from Becky on keto for dementia. "Hi, Robb and Nicki. Long time, first time. I'm a 45-year-old female about 80 pounds overweight, but my blood work is pretty darn good. Total cholesterol 203, HDL

65, triglycerides 52, blood pressure 118 over 72 on average. I was 365 pounds 10 years ago, and now I am around 225. I'm five foot five. Accomplished through a low-carb paleo diet. I feel pretty good besides my thighs chafing from the 10 to 15,000 steps I get every day. I usually eat during a 16:8 window. My feeling is that I could fast and diet down to a healthy weight, but I can't sustain longer fasts without binging. I can however stick to low-carb pretty easily. Here's the crux of my issue."

"My mom is 64 and getting dementia. She's always maintained a healthy weight and is very active. From what I understand the doctor is concerned about her fasting glucose A1C and triglycerides. He put her on a CGM, but she wouldn't use it. I'm concerned for myself because I don't want dementia. Is keto good enough to help ward off dementia or do I need to lose the weight too? I failed so many times to get under 225, but I can't give up if the extra weight is going to contribute to mental illness. Many thanks for your work."

Robb: Man Becky, that's a great question and I honestly don't know. But my gut sense is that if you are training and eating well and sleeping well... you said that your mom maintained a healthy weight which is cool. But we know that there are folks out there that end up in this kind of skinny fat camp where they...

Nicki: They look lean and thin. And her doctor is concerned about her fasting glucose and A1C. So she might be one of these people that eats pretty high-carb processed food. You know, eats pretty terribly. But for whatever reason, she's on the leaner side.

Robb: And interestingly, those are oftentimes the people that we see neurodegenerative disease earlier and it may be some of this personal fat threshold type stuff where some people when they're overeating generally, overeating carbs in particular, they may gain body fat. Like you get fat cell hyperplasia where the fat cells can split or at least they just grow. And interestingly, that ends up being kind of protective because these excess nutrients, this nutrient flux ends up going into relatively inner fat cells versus it damaging things like the brain. So what you are doing already, I just have this sense that you're probably miles ahead of where your mom was at the same stage.

And so if you've had good longevity on a lowish carb paleo type diet and you're rocking your workouts and you're good, I would focus on that. And the scale weight be damned, just keep rocking that and with the one caveat that I might throw in there which is get some performance goals whether it's a 400-meter run, a mile run, a squat, a deadlift, getting a pull-up, whatever. What's interesting to me is, and this is one of the things that I liked about CrossFit, is that people would get performance oriented and they would fuel in a way to support performance. And then as a happenstance to that, this great body composition occurred. And so I would say it's kind of steady as you go. Keep doing the dietary plan that you've been good with. We definitely don't want to do something that's

unsustainable and just launches you into binging. The name of the game is consistency and longevity. What, she's 45? We want you around another 45 plus years. And so we need a game plan that supports that. And so I would focus on that.

I would focus on some performance parameters and again, getting the sunlight, getting the circadian biology, all of that type of stuff. I'm going to end up being a Jack Kruse devotee, but Jack is right in that the circadian biology, the light exposure is so damn important. It really is. I would concede that it's probably more important than the food because it ends up driving so much of our dietary behaviors and our desire for carbs and all that type of stuff. The problem that I don't see within Jack's community is that there are a lot of people that lever is hard to toggle. Police, military, fire, new parents, all that type of stuff. And short of getting a Sperti vitamin D lamp and doing different things or you live in Seattle, it's hard to do that. And so the food ends up being oftentimes the more controllable lever.

But again, great data just supporting neurological health, low inflammation with adequate sun exposure, vitamin D production from the sun, from UV sources, appropriate circadian biology, getting out early, not a lot of lights in the evening, etc. I can't downplay the significance of that stuff. The talk that I gave in 2020 longevity, are we trying too hard, one of the key papers in that that I highlighted is that people who get adequate sunlight are as health protected as the difference between a smoker and a nonsmoker. So the people who get inadequate light exposure have as many health complications as a pack-a-day smoker. It's huge. It's just profoundly huge. So do the dietary approach that is working for you. Maybe figure out some smart achievable performance goals so that you can kind of push that edge of things. And then really reassess your circadian biology, light exposure, all that type of stuff.

Nicki: I like it. I like that you mentioned the performance goal because I noticed that she mentions getting 10 to 15,000 steps per day, but there's not any mention of training. So Becky, I don't know if you are doing any kind of resistance training, lifting weights. If you're not, this is a great thing to add. You can improve body comp and lose some weight. It doesn't have to be just dieting and fasting. If you're in a good spot with how you're eating right now but maybe just adding, using that training lever to move things. And all the links that we're putting in the show notes for Steve's question previously would be things for you to check out too if you don't already have a training program.

Robb: Yeah. And as a baseline, a couple of days a week of resistance training, a little bit of zone two cardio. I know you do a lot of steps, but it's different when we actually get in and do a training effect around zone two cardio. And then a day, maybe two days a week where you get kind of froggy and do some interval training, and it's hard. And it doesn't need to be five days a week grinding schedule with any of it. But that peppering of high-intensity interval training, a little bit of zone two cardio and then some resistance training.

Like if you just independently overlay all of those things around dementia, all of those things fight dementia in a powerful way. So that seems like a hell of a stacked deck to change the epigenetic features of this story favorably for you. And I was talking to our CEO James Murphy, CEO of LMNT the other day, and I forget how we got on this topic, but with few exceptions there are not that many disease states that are just writ in stone genetic. And we've even seen some things like the porphyria cutanea tarda and gosh, what is that? That connective tissue condition. Ehlers-Danlos syndrome.

We've seen people who do keto and even carnivore and whatnot able to dramatically alter the presentation of that condition. And it's not supposed to be possible. And I don't know if it works with everybody. We don't have any studies. It's completely anecdotal, but I remember Sean Baker had a woman MD on who had suffered from Ehlers-Danlos syndrome her whole life and it's a rough condition. It's a situation where you don't properly manufacture collagen because of some vitamin C issues, if I recall. And there's really big problems with lax joints and people can oftentimes be hypermobile. But one of the problems is that they tend to have aortic aneurysm and die. And what this woman found is when she went carnivore, the symptoms just improved dramatically. And so my whole point to this is that your mom might have some genetic predispositions towards dementia, but goddamn, genetics maybe load the gun, but epigenetics pull the trigger.

And there's all this stuff that is completely controllable by you to be able to modify that risk profile. And at the end of the day, we don't know what that's going to ultimately manifest, but maybe you end up getting some mild dementia in your nineties versus it developing in your sixties. That seems like a win. And maybe you end up not developing it at all. We don't know. But the nice thing about making these recommendations of circadian biology and some non crazy training and a little bit of performance orientation so you've got some goals, it improves our lives today. Our life is better today other than the aches and pains we get from jujitsu which sometimes I'm like, "What the fuck am I doing?" But that aside, it improves our lives today and ostensibly it's going to improve it in the long run.

Nicki: Cool. All right, folks. That is our episode for this week. Any closing thoughts?

Robb: I had a lot on the front, so I'll zip my lip on the back.

Nicki: Alrighty. All right. Thanks everybody for joining us for this episode. Remember to check out our show sponsor LMNT for all of your electrolyte needs. You can grab yours at [drinklmnt.com/robb](https://drinklmnt.com/robb). Remember the insider bundle. If you buy three boxes, you get the fourth box free. And again, that link is [drinklmnt.com/robb](https://drinklmnt.com/robb). And yeah, get outside. Get some sun.

Robb: Sun your balls, sun your [inaudible 00:38:56].

Nicki: Sun yourself, sun yourself, and we'll see you next time.

Robb: Bye everybody.

Nicki: Bye.