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. 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 bridges in a bunch, well there's always Disney Plus.

Robb: Welcome back, friends, neighbors, loved ones.

Nicki: Hello everybody. This is episode 170 of the Healthy Rebellion Radio. And this is going to be a little bit of a different kind of an episode. It's not really a Q&A and it's not quite a salty talk, but Robb had his 23andMe data analyzed and we thought we'd do a deep dive into it.

Robb: Indeed.

Nicki: We mentioned this in an earlier episode. Some question came up and you went in and mentioned that you had had this testing done. Well, it's not really testing. Tell folks what you did.

Robb: It's analysis. So Dr. Anthony Jay, who's a Mayo Clinic researcher, geneticist, and all around, solid guy. It's been on my radar for quite some time that he will go in and look at important SNPs, single nucleotide polymorphisms and try to give you some information about what those might mean with regards to your health. And 23andMe does a not bad job of this DNAfit, which they were just acquired by a different company. I actually really liked the way that they broke some stuff down. I'm not sure how that works with the new company, but DNAfit did a nice job. 23andMe actually gives you a fair amount of insight into some different topics. But Dr. Anthony Jay's work definitely goes much deeper and it was largely confirmatory of what I've known or discovered over time, but there were some eye-opening pieces to it as well.

Nicki: So we thought that today we would walk through and talk about some of the key findings of this analysis, like some of the SNPs that Robb has, what they mean, and talk about how they have manifested in your health.

Robb: And I'll just throw out there upfront, when I did this, I had to wait for three months to get in. So Dr. Anthony Jay is quite busy with this. If you want to do it heavily, strongly encourage you to do it, but you're probably going to have to be patient about it and you will have to do something probably like 23andMe as an initial, you have to get some DNA raw data to feed to him so that he can then analyze it from there.

Nicki: Okay. So you want to pull up your report?

Robb: Well, you've got the mouse and you have the power and it's right to your left.

Nicki: Okay.

Robb: Yes. Wight to your left.

Nicki: We're going to start at the beginning.

Robb: It's always a good place to start.

Nicki: And I'm going to jump into the sound of music because there's a song about beginning at the beginning. I don't know why Dutch is barking. Let's pause really quick and see what's going on with our dog. Resuming.

Robb: Okay.

Nicki: Apologies folks.

Robb: We had a delivery and Dutch went crazy.

Nicki: Yeah. He doesn't normally, but there were some boxes that were making thumps, I guess, on the porch and he didn't like that. All right, back to the beginning of this. So this whole report starts out, the first section is brain optimization genes, and it kind of goes through some Alzheimer's brain performance cholesterol, Alzheimer's brain performance, heavy metal. So there's a lot of these little subtopics under brain optimization genes. And then the ones where Robb has a snip that kind of relates to that has a little bit more information underneath. So we're going to talk about the overarching section and then we'll talk more specifically about the things that you have.

Robb: Perfect. So as it appears on this, like Alzheimer's brain performance, cholesterol, heavy metals, BDNF, none of those things, I appear to have anything stand out. Brain performance and inflammation, and it's not even going to read all the specific genes. It's not going to be particularly helpful to folks. But intermittent fasting is an excellent tool to optimize your brain function and help prevent Alzheimer's. I'm homozygous in this too, of the same copy. According to this, and according to the current information we have, I in theory would be one of the folks that would benefit disproportionately from a brain maintenance and Alzheimer's perspective to do some amount of fasting, which I find ironic given the amount of shit talking that I've said about fasting. And the ray is just kind of a reality of a double-edged sword.

The fact that I eat a ketogenic diet likely has me in some degree of mild autophagy and anti-inflammatory activity already. That's what some of the rodent research suggests, but that is one interesting standout. So this is one of

the things that some of our... There's a saying that genes load the gun, epigenetics or the environment or whatever, pull the trigger. The trigger in this case can be both beneficial or potentially negative. The tendency towards some amount of fasting could be particularly helpful in people who have this. I do believe also the flip side of this is people with this polymorphism being chronically overfed is particularly deleterious. So that's the other side.

Nicki: So then it goes down Alzheimer's brain performance and carbs stress, seasonal effectiveness disorder is kind of surprising to me-

Robb: Surprising me too.

Nicki: Nothing was flagged there and same as-

Robb: Because it kicks my as.

Nicki: Same with depression, but anxiety with serotonin and brackets after that stuff.

Robb: I've got a bunch. I have two different really significant polymorphism there, both of them related to gut health. Interestingly. There are interventions like St. John's Wart, five hydroxy tryptophan and different things like that. But both of them refer back to, and one of them is actually specific to a tryptophan metabolism gene. And we have another dog whining at us now. It's quite a doggone morning.

Nicki: Circus.

Robb: But you know what I have attributed to being depression could also have been anxiety because the two end up being fairly similar. I have the anxiety and caffeine, which is not a huge standout. One thing that I did know is the caffeine metabolism, the CYP-1A2 gene. I'm a super slow metabolizer of caffeine and catechal amin modulation via diet and different lifestyle factors is a pretty important thing for me. And again, I've just observationally known that. And then I think it was in my DNAfit analysis, it showed that I had that. I'm only heterozygous in this. So this is one of the things that I point out around caffeine and just a lot of shit in general. People will say, is this thing good for somebody or bad for somebody?

And I like to point out the caffeine story. Luis Villaseñor, our good friend and co-founder at LMNT, he is a fast metabolizer of caffeine. And people at the extreme fast side of that story, the half-life for caffeine is about four hours. The population average for caffeine clearance is about eight hours for half-life. And then people with homozygous status in slow metabolism can be as long as 36 hours. So you have nearly a 10 x delta between somebody who is a fast metabolizer and a slow metabolizer. And then if you were to couple this with the anxiety gene or sleep disturbance or a host of different things, this is where one thing that's good for one person and not particularly good for another, it

shouldn't be that surprising.

And I think that, and we'll get into this a little bit more later, like carbohydrate tolerance and whatnot. There's just massive deltas with this stuff. And I think that we can arrive at that usually via some empirical experimentation, just tinkering and paying attention. I know that the Lane Nortons of the world don't appreciate any of that. They need a randomized control trial for everything. But I think that this is still a pretty solid piece.

Nicki: So nothing shows up under alcohol or nicotine dependence, but nicotine metabolism, you do break down nicotine slower.

Robb: Yes, which is kind of interesting. I definitely enjoy my nicotine mints. They help my gut, but they do worsen my essential tremors. So there's trade off on that.

Nicki: It says you have a slower breakdown of nicotine and toxic mold and are therefore sensitive to negative effects of nicotine and mold exposures. And golly G, you were raised in a home that was full of nicotine and toxic mold

And toxic mold. And I've even noticed this. There was an event that I did with Diana Rogers at Polyface Farms and they had on tap some fresh kombucha, and it was phenomenal. It tasted great, and I was sick as fuck for three months after that. This is when we were in Texas.

Robb: I remember that.

Nicki: My guts were all messed up. I had all these neurological issues and I finally got through it and then just smelled some kombucha after that and was absolutely repulsed by it. So when I was talking to Dr. Jay about this, because I was talking to him and we'll get to some of this later, but using Lion's Mane to help with some of the neurological issues I have and essential tremor and whatnot. And he's like, well see if it helps but given your broad reactivity to fungus and mold and whatnot, it may be very specific to just mold or it may be broader to other mold related items.

Okay. And then the last one under this is lifespan and there's nothing there.

Robb: No huge standouts one way or the other on that.

Nicki: Okay. So then section two refers to diet optimization genes. And under the first, one is type one diabetes and looks like you are more likely.

Robb: Much more likely than normal to develop type one diabetes. And what's interesting about this is inflammation generally. So if somebody gets a sunburn, most people will experience an elevation in their blood glucose level. If somebody gets a cold, they'll experience an elevation in their blood glucose level.

Because of this specific gene, this HLA-DQA1 gene, and I'm heterozygous in it, I've got two of them. And this is some of the genes that all come together that bring about celiac disease, rheumatoid arthritis, and it's thought that a lot of these genes are adaptations to neolithic living, to basically an enhanced immune response because of an increase in exposure to the neolithic environment. Being closer to more humans, animals, the inner species transmission of things like influenza and stuff like that. All of these things have in theory an evolutionary benefit from enhanced immunity, but they can bite you on the backside with regards to some problems like autoimmunity and whatnot.

What's interesting here, and we will skip down a little bit, type two diabetes and melatonin, I didn't flag, but type two diabetes, insulin and inflammation, I've got a shit load of stuff on this. It was almost every, there's insulin and inflammation type two diabetes, zinc transport type two diabetes, glucose metabolism is okay, but type two diabetes metabolism. I had almost all of the type two diabetes gene predilections I had, and I am heterozygous for all of them except for one-

Nicki: Hetero or homo?

Robb: Sorry, homozygous for all those and then heterozygous for one. But I've got a shitload of them. Like zinc transport as it relates to superoxide dismutase and reducing inflammation. So this is something that I've arrived at just empirically over time. And again, in my '20s I was eating a vegan diet, which is very high carb, and it was crushing me. It hurt my gut. I also had a lot of other lifestyle factors that weren't good, low vitamin D, not sleeping enough, living in Seattle, on and on and on. But I also had the genetic gun fucking loaded with all the barrels. And what's interesting about this, when you couple my type two diabetes tendency with type one diabetes tendency, inflammation makes my blood sugar go high. I don't really manage blood glucose all that well. I'm naturally insulin resistant even when lean. I lack some of the mechanisms that would mitigate inflammatory markers.

And so over the course of time, something pretty close to a ketogenic diet is literally the only way that I've found to have the normal glycemic life. And if I do a really hard workout, I can throw a few more carbs into the mix. I have to remain pretty lean, I have to sleep well. Like all these things I have to do every single thing right or I'm going to have serious problems with this stuff. And again, I oftentimes forget this. People will talk about dawn phenomena and different things like that, this autoimmune or the immune driven blood glucose increase. We really talked about this a lot when we released Wired To Eat, and then it's become kind of less front of mind, but there's multiple vectors beyond just dietary carbohydrate that you can get blood glucose increases and inflammation, iron overload, stress, sleep deprivation, all those things can lead into it. And I happen to have all of them. So this is some of the stuff too that had I never been open to experimenting with this, I'd probably be a full-blown type two diabetic right now.

Nicki: Had you been religiously tied to being a vegan and not open to-

Robb: Changing.

Nicki: ... changing, experimenting, seeing how you respond, eating differently. You might be on a whole host of medications if-

Robb: If I'm even still here.

Nicki: ... if even still alive. Yeah. One interesting thing here, type two diabetes metabolism, the asterisk or the little note is you are a higher responder to sunshine improving your metabolism or short tanning bed sessions.

Robb: Yes. I'm glad you caught that. I have three or four different things that sunlight dramatically improve my health status.

Nicki: Okay. Anything else you want to say? The main takeaway on all of these, both the type one diabetes and type two diabetes flags are that he needs to keep his fasted blood sugar below 85 milligrams per deciliter. And then there's some other recommended, whether it's a supplement or different things that can help in that regard if he's struggling there.

Robb: Yeah, more zone two cardio, nose breathing so that we're really priming the pumps on the fat metabolism versus dipping into the glycolytic pathways. This is probably one of the reasons why CrossFit was cool for me for a brief period of time and then ended up being counterproductive because you just tap into that glycolytic pathway so hard and I probably don't need to do that. It's counterproductive to do that.

Nicki: Okay. So the next thing was fructose and metformin. Fructose, there was nothing flagged under that. Metformin, you're a high responder to metformin.

Robb: And we talked about metformin and kind of the pluses and minuses. This is just something that if I ever noticed my blood glucose just trending upwards and I did everything I could on diet, everything I could on lifestyle, a daily dose, particularly before bedtime, could be a smart way to deal with that. Because it's somebody with different variants of this gene, they get a very blunted, if at all, efficacious response to metformin.

Nicki: Okay. Next is intermittent fasting, Adiponectin, anything you want to say there?

Robb: Just another funny one. In theory, I should be skipping breakfast and really digging into intermittent fasting. I have multiple genes that suggest that some amount of fasting should be really good for me. What I've noticed is leaning into exercise, really fasting is an exercise mimetic, and what I find is feed myself well, but exercise often and consistently, and that works far better for me.

Nicki: Next, we move into several obesity related markers, obesity metabolic syndrome, heart palpitations, heart disease, iron, heart disease, immune related. Nothing was flagged under any of those, but heart disease lipids slash cholesterol, that's one.

Robb: LPA, it's interesting in theory. I have a Lp(a) gene, again heterozygous on that. So one copy of the gene. When I've had blood tests in the past, my Lp(a) has not been noteworthy. So for whatever reason, this doesn't seem to be as big of a factor, although some of the research that I've done, it suggests that Lp(a) may be beneficial in people with autoimmune disease. And the autoimmune disease interaction with the lipoproteins may actually bring the Lp(a) down.

Nicki: And then the recommendations under this one are sauna, sunshine, and blood donations can help. And so just basically focusing on decreasing all forms of inflammation.

Robb: Yep.

Nicki: Okay. Heart disease with increased homocysteine.

Robb: So this gets into some of the MTFR genes and really the takeaway from this, if homocysteine is high, address inflammation, eat more red meat, methylated B vitamins, particularly methylated folate, and it should largely address that. If people have more questions on that topic, Chris Master John has gone so deep on the how's, whys, what's it of MTFR appropriate methylation. There's a guy, Greg Breca, we talked about him-

Nicki: Talked about in the most recent podcast.

Robb: Most recent. Seems like a great guy, but I think that he's painted perhaps a broader brush stroke with the methylation story than really what's there. But this is some stuff that again popped up and can be easily remedied with diet or a little bit of supplementation.

Nicki: Okay. Heart disease, lectin related, sugar related, hyaluronic acid, flavonoids and CRP C-reactive protein all didn't have any flags.

Robb: Standouts.

Nicki: Any standouts, processed meats, the same. Dairy, you did, flag heterozygous.

Robb: Cow dairy may cause some degree of inflammation, especially with age. So this is another thing that I've discovered with time, particularly the A2 versus A1 dairy proteins. I seem fine with A2 milk proteins either from bovine source or sheep, goat, camel, cat, dog, whatever seems fine. And then particularly with age piece I think is an important call out there. And this is something that Dr. Michael

Rose who, I really think that history is going to look back at him and he's going to be like the guy that hammered out really what aging is and what we should appropriately be doing to manage it.

And what he recommends is based on your genetics, if you are northern European or Native American, you should probably do a paleo type diet in your 20s. If you're more Middle Eastern and maybe you can wait to your 30s or 40s, or Asian, but he makes the case that probably by about the age of 40, if you want to effectively age as well as you can, something that looks akin to a paleo type diet is probably what you want to do. And this is one of the things that we see whether it is caffeine, metabolism or these weird intolerances to different foods they can and do emerge with age. So things that you got away with in your teens, 20s and 30s, you may not get away with 40 and beyond.

Nicki: I'm going to pause there for a second and I want to talk about our show sponsor.

Robb: Sure.

Nicki: As you all know, the Healthy Rebellion Radio is sponsored by our salty electrolyte company LMNT. It's cold outside. That doesn't mean you don't need electrolytes. LMNT makes it easy to stay hydrated despite the cold temps with flavors that can be enjoyed hot. We get it. When it's minus 20 outside, the last thing you feel like is an nice cold glass of electrolytes. That's why we created chocolate salt and chocolate caramel specifically to be enjoyed in hot water. And now there are three additional hot flavors with the new limited thyme LMNT chocolate medley. This 30 count box contains 10 each of chocolate chai, my personal favorite, chocolate mint, fan favorite from last year's medley and chocolate raspberry. The new chocolate medley is available now with early access for LMNT insiders. To become an insider and get yours, just add the chocolate medley to an insider bundle. It'll be publicly available for non insiders on November 28th. So get cozy and snuggle in with a hot mug of LMNT salty goodness. You can grab yours today @drinklmnt.com/robb. That's drink L-M-N-T.com/R-O-B-B.

Robb: You shameless salt hassy.

Nicki: I am. I am. Okay, so that was the dairy seed oils. Nothing flagged for you under that. Leaky gut and GI distress.

Robb: I got it all.

Nicki: You've got it.

Robb: If I have gut issues-

Nicki: He has a celiac risk gene variant that makes him six times higher likelihood to have celiac. It says avoid gluten at all costs here.

Robb: Trying to think. There's a call out ergo thionine, which I am not familiar with and have not tinkered with. Apparently this is a mushroom extract. And so I am going to do some poking around on that and see if it helps. I'll save this for later. I've had an improvement in my gut of late and that's maybe something to talk about later. But then it's interesting that because this is a mushroom derived item, there is that question about whether or not I do well with-

Nicki: All things fungus?

Robb: ... all things fungus. So yeah, we'll see.

Nicki: Okay, skin, nothing noteworthy. And that brings us to the third section of this report, vitamin hormone and detox genes. So nothing noteworthy under sulfites, iron levels, vitamin D, pharmaceuticals and chemicals, testosterone or sex hormone binding globulin. But under estrogen you have a handful of things.

Robb: A bunch of different things. So what happens with one of them is I have an affinity for estrogen receptor alpha to be over activated. And this is what can be particularly concerning breast, colon, prostate cancer, these things that are kind of estrogen positive. They can be really problematic in making, one, getting the abnormal growth going. And two, making it more pathological, more blinking, not virulent, but the tendency for metastasis to be worse. What's cool about that is there are a number of estrogen receptor site beta agonists or agonists that apigenin is one of them and that's something that I've started using. It's supposed to help with sleep, it could help with prostate issues. There's a bunch of different things that can be helpful there. Anything that helps with estrogen breakdown can be helpful. It's really recommending lots of brassica type vegetables for the Dion dom methane, deglucarates.

Nicki: Sauna is common in all three of these recommendations. Use a sauna at least three times per week, aim to sweat at least 10 minutes per session.

Robb: And all of them avoid artificial estrogens as much as possible. But interesting, and looking back, I can see where there have been some clear issues with stuff like this that in managing other things, I've helped to manage this. Having a reasonably low body fat level helps to deal with the estrogen status too.

Nicki: Thyroid is next, and you have a handful of things under here also. Autoimmune thyroid risk gene that's strongly linked to celiac. So again, avoid gluten. Let's see here. Tenfold higher risk of autoimmune thyroid issues like Hashimotos that's triggered by inflammation. So avoid chronic inflammation, especially via the gut so that the night that... I mean thankfully you kind of clued into all things inflammation and just because you felt so terribly and when you changed your diet and felt and noticed an improvement like. You've been doing most of the things that you need to do to-

Robb: Address these.

Nicki: ... address these items.

Robb: I haven't done really comprehensive thyroid work in quite some time. I have a real cold aversion now. I hate going into cold water. So this is something that I may look at a little bit closer. So I've got autoimmune tendencies on the thyroid side, and then I have this tendency to not easily convert T4 into T3. So if there was an issue here, it's heavily recommended that I go with an armor thyroid or naturethroid or something like that. The synthetic versions of thyroid can produce some problems, not the least of which is that they tend to be gluten contaminated, ironically.

Nicki: Also says you should avoid fluoride, eat seafood once per week,

Robb: Which the funny thing on the fluoride is I've been enjoying black tea, which actually is a little bit of a punchline for something I'll talk about here soon. And black teas are relatively high in fluoride as an input.

Nicki: Oh, really? I have no idea. Okay. Anything else you want to say on the thyroid?

Robb: Nope.

Nicki: Nope. Okay. Histamine intolerance was seemingly all clear. Betacarotene slash retinol?

Robb: So I am one of the folks that if I had to eat a vegan diet, I would die from retinol deficiency at a minimum. There are people that can convert carotinoids into retinol. I am not one of those folks. And if you're Northern European at all, the likelihood of in this stuff... Whatever capacity you have in youth decreases with age also.

Nicki: Okay, nightshades, plant steriles, cannabis, catecholamines, biotin, bilirubin, nothing under any of those.

Robb: I will mention the nightshades really quickly. I told Dr. Jay that I now am clearly very reactive to tomatoes in particular. And he said that that's just one of the gnarly things that comes about from intestinal permeability. I don't have a genetic predisposition in this direction, but probably because of leaky gut and constantly eating tomatoes and things like that over the course of time, set myself up for it.

Nicki: Methionine?

Robb: Which just a tendency to not be able to adequately produce methionine, so make sure to get enough from the diet.

Nicki: Okay, B9 aka folate is another one.

Robb: Just because of the MTFR genes, making sure to get enough of that either dietarily or supplement,

Nicki: Nothing under B12 or vitamin E, but heavy metals were flagged here.

Robb: And this is something I'm going to follow up on. He recommends with this doing every six months an IV fusion of glutathione with a functional medicine doctor.

Nicki: And we need to get your hair test done.

Robb: And he recommends a specific outfit here, mosaicdx.com. So I will be doing this and we'll follow up on this, but I detox heavy metals less well. And I think that this gets mentioned later in some of the detox pathways, or maybe it was specific to this, but I naturally don't make as much glutathione. So again, that tendency towards systemic inflammation and whatnot, and also challenges around detox.

Nicki: Okay. All right. The fourth section of this report relates to gym genes. So muscle types, you are homozygous for slow twitch.

Robb: Slow twitch, which is funny because early in my youthful training, I got really geeked out on power lifting and developed what appeared to be a fairly phenotyped fast twitch athlete. I could flatfoot dunk a tennis ball at one time. But then the funny thing, and Dr. Jay and I talked about this again, your genes are one part of this and then what you do with your epigenetics and how you train are an entirely different story. But I didn't have a ton of really legitimately fast twitch people that I hung out with as a kid. And then when I actually got exposed to that, like our friend Charles-

Nicki: It's a whole other planet, fast fish there.

Robb: ... whole other planet. Holy shit. So Charles was a good five inches shorter than me, at least four or five inches shorter than me. And he had a better vertical leap, better long jump. He's the guy that asked me, "Hey, what's the hardest pushup in the world?" And I said, "A planche pushup." And a week later he did 10 of them while we were getting gas at the gas station. And so that was the eyeopener around, and also he was a guy that ate a vegetarian diet, which consisted of Arizona tea-

Nicki: Arizona iced tea and brownies.

Robb: And jalapeno poppers.

Nicki: Jalapeno poppers.

Robb: And when I was like, dude, you got to eat a little bit more protein. And he did, and he was already jacked. And then he got more jacked and then he got less

jacked. And I noticed it because he was my roommate. I'm like, why aren't you using the protein pattern? He's like, "Man, the chicks are just not digging all the muscles." I was like, I fucking hate you. Okay, so yeah, I'm slow twitch at the end of the day, and this is something that I have been tinkering a little bit with doing a little bit more higher rep activity. The one challenging thing with that is that I notice with higher rep lifting, I get more sore and then overlaid with juujitsu. That just doesn't work great. So I do a little bit of it, but not a ton.

Nicki: Okay. Next we have joints inflammation, joints thyroid, joints blood flow and joints gout, and all of these, this is popping up like flag, flag, flag, flag.

Robb: So really high predilection towards different types of both autoimmune and just degenerative arthritic type activities. Adequate iodine, I think that there's two or three things in here too that mention sleep. And one of them is a ketogenic diet to reduce rheumatoid arthritis, like high blood sugar being really, really bad news, exercise daily-

Nicki: Daily exercise to increase nitric oxide.

Robb: ... Citruline, agnatine, even tadalafil and sildenafil like Viagra type stuff. Anything that improves blood flow is a real boon for both endothelial cardiovascular issues and also joints because of the relative paucity of good blood flow in those areas. If you do a little poking around on tadalafil and cardiovascular disease is really nice decreasing trend with duration of use, frequency of use of some of these erectile dysfunction drugs and improved cardiovascular endpoints. So not only do you have more fun in the sheets, you maybe can keep your joints and your cardiovascular system happier. But yeah, I've got it coming and going on that. My arthritic issues in my wrists and stuff like that, I get some shoulder impingement issues really easily. Remember my dad was just crippled with this stuff from arthritic shoulders and if I wasn't doing kin stretch FRC, eating the way I am, I still have some problems with all that stuff and probably due to some genetic predilections that way.

Nicki: Okay, next is spinal discs. You do have one little flag for that if you have low back pain, optimized testosterone and diet.

Robb: Check.

Nicki: Check. Nothing on blood pressure, nothing on muscle cramps, bone strength, however.

Robb: Yeah, just a higher than normal tendency for osteoporotic activity. So lift weights, adequate vitamin A, D, K. I don't know that I get dietarily quite enough calcium as I maybe should because of eating largely carnivore type diet. I do a little bit of dairy from goat, but probably not enough. So it'll be something interesting that I'll check up on. I will do a DEXA scan at some point and just see where I'm at with this stuff.

Nicki: Nothing flagged for insulin like growth factor, pain sensitivity. And that wraps up that section. So now the final section here is sleep genes. So you are an early riser, hubs.

Robb: I am indeed.

Nicki: I knew that about you. Not a late riser, stays up later is one that's not flagged. Delayed sleep cycles and general sleep difficulties, those both are-

Robb: Basically it's a story of magnesium, relaxation.Good sleep hygiene are critical for me.

Nicki: At least seven to eight hours of sleep, which you know that anyway just on how you feel.

Robb: I need to go to bed early. I have difficulty sleeping, although I would say alcohol and different things could be really problematic for me. And then in addition to all this stuff, I have this WWC-1 gene, which if I do have poor sleep, I have 25% less memory recall than average with that. So sleep deprivation just hammers me even worse than it does most people.

Nicki: Nothing under melatonin production or blue light sensitivity, but yeah. How do you feel like having the hood opened up and digging into each of these things and knowing what your predilections are?

Robb: Good. I've talked to Nicki for years. Over time, I've just had to eat a more narrowed diet and I have this, it'd be nice to eat a few more carbs here and there, just a little bit of variety even getting down. I will throw out there and it's a knock on wood thing, but I've been able to eat more greens lately. And again, I will talk about that at a future episode. I want to do a little bit more digging to vet out what I think is the why behind that. But I'm grateful for what I know. But it also, the kids are like, "Hey, there's a birthday party. Do you want a piece of cake?" And it's like, well cut mine razor thin and I'll have a tiny little slice and-

Nicki: Only then if it's gluten-free.

Robb: It's got to be gluten-free and hopefully I worked out that day or I'll go do 50 air squats around the corner. And it sounds neurotic. I remember some people like Spencer Nadski, he was like, "Dude, you're fine. And the people that follow you are just the worried well." And this is a guy that was AD1 wrestler at a big school and I don't think he's had a day of illness in his life. Maybe he has, but I don't think so. He's never had gut issues or no, he has autoimmune thyroid. He actually is on a Synthroid, so he's had a little bit to deal with now that I think about. But he's a stud athlete and has always been, and fuck, I would give anything to be able to eat the variety that he eats.

Nicki: A day doesn't go by where Robb doesn't say something like I remember

scrambled eggs.

Robb: I have this egg intolerance now. Every once in a while-

Nicki: I remember salsa, tomatoes.

Robb: Tomatoes on a fucking salad. And again, I'm grateful for knowing this stuff because when I bought that flat of tomatoes at the Mennonite farm and we were eating them every day and my hands were getting worse and worse and worse, I was like, is this juujitsu? And then I'm like, no, I'm eating a lot of tomatoes. I had always kind of poo-pooed the nightshade thing. The only person that I knew that was like, no man, nightshades will fuck me up, was a Dallas Hartwig and he was fine with gluten. He didn't really notice any issues with gluten, but man, tomatoes, potatoes, eggplants really lit him up. And so I respected it, but I kind of assumed because I'm usually the hottest mess anywhere that because it didn't affect me, it can't be that big of a deal. And I really downplayed it.

Nicki: You were doing the Spencer Nordoski.

Robb: I was doing the Spencer Nordoski. And so peeling back the veil on all this stuff, there weren't really any big surprises. It's like, yeah, that makes sense. That makes a lot of sense. I'm trying to think. So the big takeaway on this stuff, interestingly, the lifespan piece, what mainly Dr. Jay mentioned. So really at the outset he's like, dude, the fact that you eat and live the way that you do, I don't have any strong predilection towards Alzheimer's, cardiovascular disease or cancer. There's nothing that leaps out there. I eat well within the parameters that I have. I really prioritize my sleep. I exercise almost daily, do some-

Nicki: You do what you can for sunlight even Bozeman is much sunnier than Kalispell, but you do red light, you do your spurty religiously.

Robb: So I'm ticking a lot of boxes. And he was basically like, dude, you're going to live a long time, which was maybe the biggest surprise that I had. And I told him, it's always felt like this loaded gun over my head because both of my parents died at 70 and 71 from cardiovascular disease. But both of them had poorly managed diabetes for at least 20 years, maybe 30 years.

Nicki: Both of them smoked.

Robb: Both of them smoked. My dad drank. And he's like, yeah, that's like a non issue like that. I get it. I know that primary family member with a disease that's supposed to be this big bugaboo, but he's like, that was entirely lifestyle driven and you're ticking all these other boxes. So I've felt this anxiety around like, man, I got to get it all done because I'm probably dying next week. And he was like, no, I don't think so. I don't have any of these negative genes that would suggest a curtailment in lifespan.

And so as long as I stay on top of diet and lifestyle and stress and all that

type of stuff, probably have a decent chance at a good run with this stuff, which was probably the biggest eyeopener I had. Do I have a lot of issues? Fuck yeah, a lot of them. But fortunately some people have mentioned, they're like, yeah, I'm gluten reactive, but it's all neurological and so I don't feel it until five days later. And so you're lucky because you shit your pants and get all these gut issues and in some ways it's true the responses that I had.

Nicki: You notice how you feel so acutely that you've been able to steer your dietary choices accordingly because you notice how you feel.

Robb: And even the lifestyle stuff, even though I didn't technically have specific gene predilection for seasonal affective disorder, man, it affects me. And I noticed that. And then also that piece of poor sleep basically dropping my IQ by 25%, it's just like, okay, it's not worth it. It's just flat, not worth it. So it's interesting that the genetics that I have been dealt, lined up in such a way that I had a really powerful feedback loop. It's like, here's a signal man, now what are you going to do about it? And so I think that this is one of the call to arms for everybody. If you notice that your sleep gives you more problems, people who make it through fighter pilot training and surgical training, they don't have the genes that I have. They just don't make it. They wash out. So usually these folks at least have some degree of resilience in those areas, but that resilience comes at a cost at some later date.

So in a lot of ways, I've been super lucky by the hand that I've been dealt both in the timing, the internet, paleo, CrossFit. If I'd been born 20 years earlier, I would've been host. Possibly if I was born 20 years later, or let's say 30 years later, we'll see 40 years later, a bunch of this information is liable to be gone at some point because it doesn't meet the standards of what the Google fact checkers and everybody thinks is legit. And I think that this is where people like Dr. Anthony Jay and the Healthy Rebellion and different places where we can talk about this stuff and help folks dial in what they have for their individual needs is so incredibly important and so powerful.

Nicki: Awesome. Well, I hope this was interesting. Maybe even helpful for some folks, we will put a link to Dr. Anthony Jay's consulting website in the show notes.

Robb: It's ajcoo.com.

Nicki: But as Robb mentioned, there is a lengthy waiting list, but if this is something you're interested in, you should put yourself on the waiting list sooner as opposed to later. Let's see, any other final thoughts here?

Robb: I don't think so.

Nicki: You don't think so?

Robb: Hope everybody has a good Thanksgiving weekend and all of that. Stay off social media, I'm doing my best to. Every once in a while I get roped into

getting back on there against my better judgment, but yeah.

Nicki: Yeah. All right folks, thank you again for joining us. Remember to check out our show sponsor LMNT @drinklmt.com/robb. Grab one of those limited time boxes of chocolate medley, like I mentioned in the last episode, chocolate chai and coffee. The splash of cream is just like an eggnog latte and tease the season.

Robb: Only better.

Nicki: Only better.

Robb: Because I hate eggnog and this stuff's pretty good.

Nicki: And without all the sugar and calories of a real eggnog latte. So anyway, wishing you all a very lovely weekend. Hopefully you're enjoying it with friends and family or other loved ones. And we'll be back next week.

Robb: Bye everybody.

Nicki: Take care.