

Nicki: It's time to make your health an act of rebellion. We're tackling personalized nutrition, metabolic flexibility, resilient aging, and answering your diet and lifestyle questions. This is the only show with the bold aim to help one million people liberate themselves from the sick care system. You're listening to the Healthy Rebellion Radio.

The contents of this show are for entertainment and educational purposes only. Nothing in this podcast should be considered medical advice. Please consult your licensed and credentialed functional medicine practitioner before embarking on any health, dietary or fitness change.

Warning. When Robb gets passionate, he's been known to use the occasional expletive. If foul language is not your thing, if it gets your britches in a bunch, well, there's always Disney Plus.

Robb: Welcome back.

Nicki: We're live. Episode 128 of the Healthy Rebellion Radio. Hello, everybody. We are back, we've survived the weekend. I survived a very stressful event.

Robb: Oh, that's right. You had a harrowing event.

Nicki: I had a harrowing event, which thankfully all has resolved wonderfully. But we went out and got some Mexican food on Thursday evening at a local place in Bigfork and somehow I left my purse. Normally, when we go places, well, at least over this weekend, Robb drives.

Robb: 95% of the time I drive-

Nicki: Half the time-

Robb: ... you don't bring a purse.

Nicki: ... if we're going into the gym, I'm not going to bring my purse, because I don't want to have my purse at the gym. It's just something else to keep track of. So, often I leave my purse at home. Especially if I'm not driving, which is a-

Robb: Most of the time.

Nicki: ... good amount of the time. And so, we went out to dinner, came home. Friday morning was my birthday, we went to the gym, Robb drove. Went to the chiropractor, Robb drove. Went home, we made dinner. Saturday we went to open mat, Robb drove. So, it wasn't until Sunday morning that I am ... I forget what I was even doing, but I'm like, "Where's my purse?" And I couldn't find my purse and I'm super stressful. We look everywhere. We look in the car, we look in the closet. I normally put it in the closet.

Robb: It's usually one of two or three places.

Nicki: Two places. And so long story short, the only place I can think the last time I remember having my purse was at this Mexican restaurant. And of course they're closed on Sunday and Monday and online it said that they didn't open until 4:00 PM on Tuesday. The thing that made me feel okay was that we hadn't had any fraud alerts on the credit card or anything like that. And you can go in and log onto your credit card and you can lock it, so I did that, so I felt okay. I also had a checkbook in there, so I was like, "Oh, shit, what can ..."

Robb: Only had your driver's license-

Nicki: My ID.

Robb: ... and all that stuff.

Nicki: So it was stressful. But yesterday, Tuesday, 4:00 PM I went there and they were like, "We were wondering when the person was going to come back. We never even opened it." My phone wasn't in there and my keys weren't in there, because I don't know why, but thankfully my purse was, they just had put it in their little manager closet and it was perfectly fine, everything intact. I'm so thankful there are wonderful people in the world. Crisis averted. It was-

Robb: Nicki's ponytail was wound pretty tight this weekend.

Nicki: It was a little tight. You don't know, with everything with identity theft and all this stuff, I just was fearing-

Robb: It could have turned-

Nicki: ... that it could have turned into-

Robb: ... into a total disaster.

Nicki: ... something awful. They would have had my ID, which has our home address on it and, I don't know. But anyway, I'm so thankful that these folks were just amazing and saved it for me. So, that was that. Otherwise, I had a wonderful birthday weekend.

Robb: Nicki drank a bottle of Prosecco afterwards to ...

Nicki: Otherwise I had a wonderful birthday weekend and all is good. We're starting to get some rain and some-

Robb: Spits of snow.

Nicki: ... spits of snow. So, looking good. What else hubs, what else is new in the world?

Robb: Lots of new stuff.

Nicki: Lots of new stuff. The world is, it's a fascinating place these days, as you all know. What do you have for our news topic today?

Robb: So, the news topic is from one of Nicki's favorite podcasts called Bankless, and Nicki, these guys talk a lot about crypto and decentralized finance and they are very smart guys themselves.

Nicki: They're two young kids, very articulate, very smart. I know that in the crypto world there's a whole host of personalities and some people really like these guys, some people don't, just like every other industry in existence. I tend to like their humor and they have fairly interesting guests.

And so, this one is an episode with a man named Ben Hunt who writes a newsletter called Epsilon Theory. And I'm not a subscriber to his newsletter. I have seen some of his tweets get recirculated on Twitter and find some of his stuff interesting, but listened to

this episode and then ... Actually, when I was driving to get my purse yesterday at 4:00 PM I put it on and started listening and got 15 minutes in and then when I came home I was telling Robb about it. And so, we listened to the rest of it while we were making dinner.

Robb: So, Ben impressed me with what ... I am not a subscriber yet, but I am going to be subscribing just as a ... I know there's a million things to subscribe to, but Ben is clearly a very smart guy, a very measured guy and when he ... One thing that got on my radar was that he put a phase diagram of water transitioning from liquid, to solid, to gas and related that into economics. And oh my god, if that's not-

Nicki: Yeah, that was an article that we saw a couple months ago and I was like, "You're going to like this one."

Robb: So I was super impressed with that, and in this Bankless podcast, it's episode 141, we have the link for that.

Nicki: We're linking to the YouTube video in the show notes, so that you can watch it if you want to watch it, otherwise you can find it on whatever podcast service you use and download it and listen. But it's a pretty interesting one.

Robb: And I've heard other people articulate this, Chris Martenson probably being one of the primary folks that have talked about this, but just this notion that super low interest rates, artificially low interest rates by the Federal Reserve in the United States and also the European central banks and whatnot, starting around the mid-1990s to deal with a bond crisis that occurred then, has created a scenario in which we're screwed.

Nicki: The cost of money has been super cheap for a really long time, which disproportionately helps wealthy people, it doesn't help everybody. And now the chickens have come home to roost and in order to fix the problem, obviously the Fed is raising rates. And typically, the Fed has to raise rates to a greater level than what the rate of inflation is.

Robb: Didn't you say double?

Nicki: It has to be-

Robb: Or just greater than?

Nicki: No, it has to be greater than the rate of inflation. And currently the federal rate is three-something and the published inflation rate is eight. Although, lots of people are saying it's maybe 16-

Robb: If you go-

Nicki: ... percent.

Robb: If you look at it the way that they looked at inflation up until the mid-1980s, inflation is closer to 17%. And again, this is something that folks like Chris Martenson have been talking about for a long time. Back when we thought that our inflation rate was "only two or three percent," they would make the case, "No, it's actually six or seven percent if you look at it the way that it's been historically done."

And the reason why this thing has been tinkered with, is that it gets the government off the hook from making cost of living adjustments.

And what's interesting about it is, he makes the case that what has happened over the last 30 some odd years is that a massive amount of wealth has accrued in a very small group of people, but yet GDP and productivity has been flat or has relatively declined. When interest rates are higher than ... businesses are forced to take risks, legitimate risks-

Nicki: To innovate, to try to ...

Robb: ... to innovate, try to get that next new thing, the next important piece of technology or innovation. And instead of that, because of these super low interest rates, they can just borrow money, do-

Nicki: Buyback stock-

Robb: ... stock buybacks.

Nicki: ... and do all sorts of things which don't lead to an increase in GDP, but leads to an increase in wealth for these people in these higher levels.

Robb: I find all that interesting, this inflationary stuff is both interesting and terrifying. If you've read a book like *The Mandibles*, or have paid attention to places like Zimbabwe or Argentina, when they've gone through really significant inflationary periods and not surprisingly, almost everybody gets hammered in that. The very, very rich have ways of navigating around that stuff, the poor and the marginalized get disproportionately hammered. So, no surprises there.

But he makes the case that this is also led into the political schism that we are in and it has fed into ... And again, other people have articulated these pieces. What was impressive to me is that Ben tied together a bunch of different topics in a very elegant way, straightforward and showed the potential connectivity between them.

And it wasn't really that long ago, maybe around 2000, 2001, politics was still this thing of relative compromise. One side of the aisle would win and then they have to figure out, "Well, I've got to work with these assholes," and there's a little bit of back and forth and compromise. And then somewhere along the line this turned into effectively the same thing as team sport, where it's competition. And when it's competition, when you-

Nicki: And even beyond that, it's like my side is the only side for good and the other side is inherently evil.

Robb: Yes. And when you play that way, it is literally a winner take all strategy. And when you understand that it's a winner take all strategy, then both sides are willing to do literally anything, because losing is perceived and could potentially be literal death or all kinds of-

Nicki: So many topics in this episode, it literally is a phenomenal episode. Highly, highly recommend you listen to this one episode. Everything from game theory, to a potential solution for how to rectify some of this political stuff. Apparently there was a bill that was passed in Congress in the 1700s-

Robb: 1700s.

Nicki: ... that would never pass today. The only thing is it hasn't been ratified by however many states need to ratify it, I think only 11 states ratified it back then. But this could-

Robb: Basically, it allows a-

Nicki: More representation.

Robb: More representation and instead of the very set ... And it sounds, on the one hand, I do want to think about this a little bit more, but basically it's about you get effectively one congress person for every 500,000 people approximately now, just the way-

Nicki: Currently.

Robb: ... that it plays out. And then in this potential setup it would be one per 50,000.

Nicki: I think it's the Apportionment Bill or something like that.

Robb: And the case that Ben made on this is just that you could potentially get far more representation, far more people at the edges.

Nicki: It wouldn't be the old boys club or the old timer club or whatever the club it is that's currently running the show. There would be far more people, far more voices, and much more-

Robb: Much more localized representation.

Nicki: And it's kind of a wedge into getting, changing some of the stuff that we have going on, which is clearly not serving us anymore.

Robb: And what I liked about this is, I think, and what the fuck do I know? But, I think a lot of people run around chasing symptoms. People will say, "We need a \$15 an hour minimum wage." And it's like, "Okay." And they have absolutely no understanding of what that does to inflation. And it doesn't really address underlying mechanistic problems, people are in a ton of the well intentioned, but I think completely misguided social justice topics, people are chasing symptoms.

And there's no better way to control people, I think. You look at the way that modern medicine is largely run, if you get people running around chasing symptoms then they never look behind the curtain at the root cause. And this is one of the best root cause podcasts and discussions that I've ever experienced, both with the financial world, economic world and then also bleeding over into this political world. And I think we all know that, particularly in the United States, this two party system that we're in is devilishly broken and dangerously broken now.

We have a potential existential threat with interactions with Russia and China and to say nothing of challenges at home, and it presents some root cause, simple on the one hand, strategies for addressing this would not be easy to do. But there are some things that I think mechanistically could get in and really make for some better change.

And again, he's singing, maybe because I like it, he's talking about we need more decentralization, we need more people locally relying on each other instead of this kind of masking tackle of social media and whatnot. And so again, kind of catnip for me, but I think it's really important. I think that it offers a ray of hope. And maybe more important than the hope, it actually explains why things-

Nicki: How we got here.

Robb: ... are broken they way that they are. Because if you don't understand mechanistically the way that things are broken, it's easy to get sucked into these first order solutions that are presented to us that usually are trap and usually ends up just pitting one person against the other instead of understanding just the structural mechanisms of where things are broken. So highly recommended. It's in the show notes. And again, if you just want to search it, this is the Bankless podcast with Ben Hunt. Highly recommended.

Nicki: Episode 141, Who Stole the Wealth?

Robb: Cool.

Nicki: Okay, go back to our episode notes, hubs. There we go. The Healthier Rebellion Radio was sponsored by our Salty AF electrolyte company, LMNT. And I have to say one of the coolest things about LMNT that we hear from people and we experience ourselves is that people actually feel a difference when they use it. Their energy levels improve in a noticeable way. Their muscle cramps disappear. Performance improves noticeably.

And I have a review here from one of our verified buyers, Joseph, who says, "Who would've thought that something so simple can work so damn well? I've never been good at drinking water during the day, but now I get in at least 64 ounces with one packet. My back and foot cramps have disappeared. I feel energetic and no more afternoon lethargy. I am begging to get back into shape after many years of only being lightly active. I can't wait to see how this stuff works when I actually get sweaty on a regular basis. Thanks to Robb and the Element team for, again, making simple solutions to our problems."

Robb: Nice.

Nicki: I thought that was an awesome review. Remember friends, don't let friends go about their day without adequate electrolytes. Be sure to spread the love to your friends and family. You can grab yours at drinkLMNT.com/robb. That's drinkLMNT.com/robb.

Okay, we have three questions for you all this week. The first one is regarding nutrition for cystic fibrosis. And it's a question from Leah. She says, "Hi Robb and Nicki, I am a listener of three years now. I'm a current college student who just got married to my high school sweetheart of six years. I love listening to your podcast and I have learned so much that it has enabled me to make my health an act of rebellion. Once I'm not a broke college student, I will become a member of the Healthy Rebellion.

Now on to the question, my husband, who is 23 years old, has cystic fibrosis and is interested in changing his diet. However, I think what is a healthy diet for me may not be a healthy diet for him. His entire life he has been encouraged to drink sodas and eat absolute junk food just to meet his daily caloric intake. Cystic fibrosis patients on average have been told they need to almost double the amount of calories a normal person needs a day, between 2900 to 4500. Because of this, many CF patients develop diabetes in their later lives, which we are trying to avoid and it runs in both of our families. Two years ago he stopped drinking soda and coffee or anything with lots of sugar or caffeine. He also does not drink alcohol.

He drinks about a gallon of water a day. And since getting married in July, has tried to significantly cut down on his processed carb intake. We've been eating mostly proteins and vegetables with rice, seasonal squash and potatoes. We live in North Carolina, have some great farmer's markets and try to get most of our stuff from there. He lifts weights

three to five times a week. We're both service industry workers, so we're on our feet for six to 10 hours a day.

But since cutting out most of the processed carbs, he's lost 10 pounds that he didn't really need to lose. He's five-foot-six and weighs about 135 pounds. He's since found it difficult to put on muscle, wake up in the morning and maintain energy throughout the day. And I'm wondering if all of this is because he's not taking in as many calories as he needs, or maybe it's a lack of protein.

Currently he eats about 2000 calories a day and averages 40 to 60 grams of protein in a day. He has two high fat snacks of either yogurt or cheese in order to take specific medicine he needs. This is in addition to his three meals per day and he's often found that he will get too full and feels sick if he eats more. So how can he increase his caloric or protein intake without feeling full too fast or eating absolute junk food? Thank you for any of your thoughts. Most diet advice we've been given for people with cystic fibrosis is just to eat high fat, high carb and processed foods. And that is a very sad diet."

Robb: Man, I almost passed-

Nicki: And the coolest thing that she said here is, "Thank you for all you do to encourage a healthy diet and lifestyle. You do reach a younger audience."

Robb: Nice. We-

Nicki: So she's been listening almost since right after high school. Very cool.

Robb: We had speculated on that because within the Healthy Rebellion it seems like

Nicki: We're all old.

Robb: We're all old.

Nicki: Not old, just 40s, 50s.

Robb: Well seasoned.

Nicki: Plus.

Robb: Everybody in there has more life behind them than in front of them. I almost didn't tackle this one because there's a lot of moving parts to cystic fibrosis. I will say this, that some early ... I don't know if it was ever published, but early, early on Loren Cordain had some interesting work looking at paleo diet stuff and just rates of infection in CF patients, because with cystic fibrosis there's some sodium pump issues within the lungs that they can end up with fluid buildup. And there's a real propensity towards developing pneumonia and whatnot.

And again, I looked around and I couldn't find this and God, I would've sworn that there was a published paper on this, basically a clinical intervention, CF patients, paleo diet, standard diet, CF patients showing all these improved biomarkers and then much lower rates of pneumonia developing within them.

I can't find it anywhere. So I don't know if it was never published and I saw something that was-

Nicki: Was early?

Robb: ... never published, if just my Google skills suck now or I'm just completely making this up and don't know at all what the hell I'm talking about. And I would put about equal potentiality around ... 33-and-a-third around all of those.

But what's interesting about this is right in the beginning here, it's like they're told to eat more calories and then, oh, by the way, they develop diabetes. There are some energetic, additional energetic needs that the CF individual does need to think about. And again, this is where the Colin Show would be amazing at some point because what seems to be happening is maybe too much fiber, too much bulk to the food, not able to get in enough calories. He starts feeling full before he is really getting in enough calories. He's less than half of what he needs to be on protein-

Nicki: On protein, for sure.

Robb: ... as a baseline. Each one of his meals-

Nicki: Could be 40 grams.

Robb: ... should be 40 to 60 grams of protein as a beginning spot. If he's having problems with that, this is where some digestive support, like the Betaine hydrochloride or a NOW Foods super enzyme or something like that at every single meal to help kickstart the digestive process.

And if you use something like the Betaine hydrochloride or the NOW Food super enzymes, poke around for the protocol for how to use that because you want to take enough such that you feel a little bit of a warmth in your epigastric region, kind of where your xiphoid process, where your ribs come together, with meal. And that's kind of telling you that you're enhancing the pH status of your stomach.

Nicki: You can also mix up your variety of protein so you're not just trying to get through 40 grams of one thing if that's challenging. You can have a little bit of shrimp with a little bit of ground beef and things can be seasoned differently. So in this situation, you're trying to add some hyper palatability to the protein so that it goes down a little easier.

Robb: That's a fantastic point. And we've seen that help folks immeasurably. 40 to 60 grams of just ground beef is pretty hard to do. If you've got some ground beef and some sauteed shrimp or something, it's pretty easy splitting that up 50/50. It's really easy to add a little bit of extra calories in the form of couple of tablespoons of olive oil on anything. If you like coconut oil, if you like coconut milk, doing something like a fat bomb coffee or tea. I know it sounds like he's gone-

Nicki: No caffeine.

Robb: ... the no caffeine route, but you could do decaf coffee or you could do a decaffeinated tea and then add coconut milk or some whole cream or something like that, just sneaking in calories anywhere. But I would really focus on the protein and it sounds like he's having problems getting enough calories.

And I've been a little bit in this spot of late because I've been getting up and I finally got kicked in the Jimmy hard enough that I'm like, "I got to do this zone two cardio and I got to do it as often as I can," for a host of different reasons, and I generally feel better. But I got really, really lean and then I started feeling like shit, because I also have the flip side

of this, which is the way that I have to eat, I'm really limited in both the amounts and types of food that I can eat.

And so I've been in a little bit of a tough spot with that and it took me a while to sort that out. But I'm doing better. But I just have to add I've been doing a lot of olive oil added to the meat dishes that I eat and I do a little bit of nuts. But the shitty thing is it'd be super easy if I could just do a cup of almonds and just hammer that, but my digestion will not deal with that. I can do a quarter cup of almonds, quarter cup of macs here and there. Not every day, not every meal. But what I do is I just find these higher calorie sources.

Nicki: Avocados.

Robb: Avocados.

Nicki: If you can find them ripe in Montana at any point.

Robb: Well, apparently they come in rip in the fall.

Nicki: They come in, in the fall. We don't get them-

Robb: Because there were none-

Nicki: ... any other time of the year.

Robb: ... to be had in the summer.

Nicki: But we've been lucking out here.

Robb: So those are the things that I would do. I would definitely up the protein. I would think about digestive support, add fat, calories any way that you can. Olive oil, coconut oil, coconut milk, some whole-

Nicki: Seems like he does okay-

Robb: ... in the coffee.

Nicki: ... with dairy because he is eating cheese. So that's another calorie source if he tolerates that.

Robb: Yeah, and I mean, it maybe gets a little bit pricey, but a really good Greek yogurt is going to be high protein and high fat and maybe just sit down and eat that whole damn thing. And with the girls I was doing before I figured out that dairy was a problem for me is I would take a few teaspoons of preserves and put in the Greek yogurt, add a little bit of stevia to it and oh my God, it was good. When you're generally eating kind of low carb-

Nicki: It's like a ...

Robb: It was like a Dannon Yogurt or something. I mean, you just got to eat more of everything that you've got there. And I just can't get on board with this notion that eating super shitty food is the answer.

Nicki: Is the answer. Yep.

Robb: Maybe here and there, of course. Again, within the parameters that your health allows, kicking your heels up is fine, but as a solution, telling people to just lean hard into-

Nicki: Junk food.

Robb: Yeah, just seems misplaced. And particularly when we do know, when we look at the health outcomes for these CF patients, they do have these remarkably high rates, higher than even the average population of these metabolic diseases because they are told to overeat effectively, they, "Aye, aye, captain," and they do it and then they end up with problems down the road.

Nicki: Cool. Our next question is from Alan on gaining lean mass and inflammation. "Hey Robb, I have been resistance training consistently since I was 13 and I'm now 29. I do not struggle gaining weight when I dedicate myself to it, but I have noticed that when I bulk up, I also increase my symptoms of inflammation, mainly eczema, skin redness, bloating, fatigue, and difficulty sleeping. I'm six-foot-two, currently weigh 185 pounds and weight train three to five days per week.

I haven't measured my body fat in a while, but I'm assuming it's very low judging by what I see in the mirror. The last two and a half years I've been following the autoimmune protocol and have tinkered with carnivore as well. I feel the best I've felt in my life, but I've also lost weight, including both fat and lean mass. For the majority of my adult life, I have hovered around 200 pounds, which is 15 pounds heavier than now.

I've tried to increase my calories to gain lean mass while sticking to the autoimmune protocol, which works in increasing my lean mass but even though the foods are the same, just the fact of eating more calories in general will almost always increase my symptoms. I tried bulking up while on a carnivore-ish diet with similar inflammatory results, although maybe not quite as bad as when I ate more plants while on AIP. I seem to have a limit of how much food I can eat before symptoms come up, which is at the maintenance level for my 185 pound body.

I've also tried different styles of hypertrophy training with high volume and lower intensity or lower volume and high intensity, both of which don't seem to make a difference in gaining muscle mass as much as dietary or caloric changes. My question is, is there any way for me to increase my calories or gain lean mass without having to suffer the consequences of increased inflammation in the process?" That sounds like your problem.

Robb: It is absolutely my problem. I would love to be five, 10 pounds heavier than what I am and I can't support the food. It gives me the gut issues. I don't have the eczema and some of the other things that Alan's reporting, but it's super similar. I end up hitting kind of a digestive threshold where I just can't process the food and I start getting some of these other problems.

There is a reality that a mass gain protocol could be really helpful for a high school kid who's going to college and he's got a chance to get a scholarship and he's got to put some weight on. But that mass gain process, if we were to really closely track this kid's progress, he will have some biomarkers of systemic inflammation and metabolic disease kind of brewing in that overfed state. Now, it's not a big deal because generally we don't maintain these people at a hyper caloric level forever.

John Wellborn talks about this all the time where guys get out of the NFL, they're not as active, they continue eating the way that they have continued to be eaten and they end up a metabolic disaster.

So Alan, the short story here is there's not really a way to bypass this. What you have to ask yourself is, is the juice worth the squeeze on this? And it's really all it comes down to. I think it's great that you've tinkered with the different stimulus side of this thing, but absolutely the primary vector on whether or not you gain mass or not is the calorie side of this deal. And it's great he's figured out that less inflammatory foods like a carnivore-ish thing is probably the least likely to cause the least magnitude of problems in this whole thing.

But there's going to be some degree of problems. And I think you just have to ask yourself, is that worth it? And what I experienced so much, and this is a big part of why I started getting out of the power lifting, body building kind of scene. And I think looking back now, I was developing gut issues ages ago. I would work and work and work so much money, so much effort, like six meals a day for months, and I gained five or 10 pounds and then one weekend of travel or stressful situation-

Nicki: No sleep. You were missing some sleep.

Robb: ... where I missed some meals, no sleep, or whatever, and I'd lose almost all of it. It would just peel off of me and-

Nicki: One step forward, two steps back.

Robb: It was like 20 steps back and I had to work so disproportionately hard to gain that. Some people gain a lot of muscle mass relatively easy. Six-two, 185 pounds is a nice, lean athletic physique. I get it, that like 200 pounds you start turning into a brick shit house. Does he mention his agent here?

Nicki: 29.

Robb: 29? I will say that as the years accumulate, you usually tend to just ... I think you can settle into maybe a little bit more weight, but I would just really ask, is it worth it to try to add the weight? Because it's probably going to be this constant battle where you'll gain a little bit, and then again, if all of your world isn't exactly dialed in and you don't need to eat as much for maintenance as what you do to gain, but you've got to eat more overall. And I don't know how that's going to play into the systemic inflammatory issues and all that. And we know that eczema and these different markers of systemic inflammation and autoimmunity, they are canaries in the coal mine for deeper health issues.

Type two diabetes, cardiovascular disease, neurodegenerative disease. So you're young, you're fit, you're healthy, that might be good enough, but you have to make the cost benefit analysis there and figure out if again, the juice is worth to squeeze on it. But I think you've, Alan, you've mapped every option here. I cannot conceive of a different option on this.

And some cynical people would say, "Well, just go on anabolics." Anabolics might help a little bit, but they're not going to be a magic bullet. You still need to consume more food. It's possible that anabolics could, because they do offer some degree of an anti-inflammatory effect, they could mitigate some of the systemic inflammatory issues. But again, you're also 29, I don't know if you have kids, if you want to have kids, then you're

in that whole rope-a-dope of you might be knocking out your fertility so that you can gain 10 or 15 pounds of muscle. So you can look better and then potentially not father kids.

Nicki: Lots of things to consider there. Final question this week is from Beth about slow metabolism. "Hi Robb and Nicki. Everywhere I look, there's talk about how to increase your metabolism, how to burn more fat, et cetera. But no one that I can find is asking if this actually makes sense. We wouldn't want a car that's an inefficient gas guzzler, so why would we want to put more fuel in our bodies than we have to?"

Even from an evolutionary perspective, I would think having a slow metabolism, a lower basal metabolic rate would be advantageous. I get that the majority of the population is overweight and looking to lose it, but even in health and fitness communities, I can't find any information on this. I personally would absolutely love to be able to cook and eat less without losing weight. So my questions are, might it be healthy to have a slower metabolism? And if so, are there any strategies to facilitate that?"

Robb: That's a really interesting question, and if you look into what the effects are of even mild hypothyroid, it's consistent with what Beth is talking about here. They don't need quite as many calories, but the person tends to be cold, they tend to be a little bit lethargic. Not always. There can be this kind of fine line-

Nicki: Depends on where you are on the spectrum.

Robb: Yeah. Without a doubt hyperthyroid, and this is kind of establishing both humans and other animals, hyperthyroid is a recipe for a shorter life. You literally just kind of burn out faster. Interestingly, a ketogenic diet is this kind of thermodynamic efficiency that Beth is kind of alluding to, because we don't really rely on the mitochondrial complex that goes through glycolysis to all that much of a degree, we get fewer reactive oxygen species because we're mainly going through that lipolysis process. And it tends to be more thermodynamically efficient. And this is something that I've talked to Luis and some other people about this within the keto community.

For ages, there was this thing, eat everything that you want, so long as it's low carb and you're good to go. And then we would see people become huge by doing that and they would start doing crazy things or, well, the butter that I eat has one gram of carbs per brick, and so it's the gram of carbs, not the thousand calories of butter that they consumed. It's just absolute madness.

This is a hypothesis, and I don't even know how you would test this, but I think over the course of time, somebody who is very fat adapted, somebody who is in a ketogenic state, and as an aside, people who are in a ketogenic state see a down regulation in thyroid production. And many people will say that that's bad. Part of the question there is, is that actually bad or is that just the normal operating parameters that somebody who's eating fewer carbs should be at because thyroid is needed in processing carbs? So if you eat fewer carbs, do you need as much thyroid? But that is a way of reducing thyroid, of reducing-

Nicki: Metabolic rate.

Robb: Possibly metabolic rate because you don't have that spillover of a reactive oxygen species at the mitochondrial level. So a low carb ketogenic diet might be the way to thread the needle on this. And there have been some studies looking at a non-calorie

restricted ketogenic diet in mice and it providing a 10 to 15% boost in total longevity. And that's a whole other topic that we don't have time to get into today.

Nicki: It looks like she's looking to, she wants to cook less and eat less and not lose weight. And a lot of people on keto, I mean, if you adjust your calories, that's potentially a doable thing because people tend to be less hungry, and doing two meals a day would be certainly be-

Robb: And it's certainly-

Nicki: ... a doable thing.

Robb: ... satiating and-

Nicki: And satiating.

Robb: ... all that stuff.

Nicki: And as long as you're getting enough calories, she should be able to maintain her weight.

Robb: I think that that's the way to get to the spot that Beth is alluding to. Yeah, for sure.

Nicki: Okay, hopefully that helps some. That's our last question for this week. So, that is a wrap. Any closing thoughts, hubs?

Robb: Not really. Just hope everybody's doing well. Our fall is transitioning into winter, so that's both cool and daunting.

Nicki: You said the other day that we have what, 180 days until we can make vitamin D again?

Robb: 119 days-

Nicki: 19.

Robb: ... until I can make vitamin D outside again.

Nicki: 119 days. He'll probably have the kids make one of those little chain things so we can tear off-

Robb: Tear one off a day.

Nicki: ... one every day and keep track. But anyway, folks, hope you have a fabulous weekend. Thank you for joining us. Remember to check out our show sponsor, LMNT. You can grab your electrolytes. The value bundle is your best deal. You buy three boxes, get the fourth box free. You can do that at drinkLMNT.com/Robb. And my voice is ...

Robb: You almost got it done.

Nicki: Almost got it done. [DrinkLMNT.com/Robb](https://drinkLMNT.com/Robb). Thanks everyone. We'll see you next week.