

Robb: I think it's going.

Nicki: I think you're recording.

Robb: Welcome back to another edition of the Healthy Rebellion Radio. Wife, what's going on?

Nicki: Oh, gosh. I just hope everybody's having a very wonderful and safe holiday week.

Robb: Indeed.

Nicki: We're super pumped because just coming up here in a few weeks, we're doing our very first 30 Day Rebel Reset and 7 Day Carb Test inside the Healthy Rebellion.

Robb: What more could you ask for?

Nicki: I know, so we've got all kinds of stuff planned. I know we mentioned this in the previous episode, but I just want to remind folks, if you are curious about the Healthy Rebellion community and you're not yet a member, this is really the perfect time to join because we're going to be doing a community-wide 30 day reset for those who want to. Some folks are already doing keto and have set macros, or maybe you're a carnivore, but there is the sleep movement community pieces of the reset that we'll be touching on as well, so if you want to join and have community support and Q & As and all kinds of fun stuff we've got planned then join us.

Robb: Yeah, there is a lot going on in the Healthy Rebellion. We generate a lot of content in there, but these transformations are really valuable for folks. Regardless of you, body composition, or performance, or even like you say, kind of a sleep or other lifestyle type stuff, so yeah.

Nicki: And just that support, right. A lot of times people make a big plan to do something different in the new year, and they are going it alone, and it's a lot harder to go it alone frequently for most people then to have a supportive community that's got your back.

Robb: Generally, the greatest determinate of whether or not somebody succeeds in change is the social support that they have, for sure. So that kickoff is happening January 10th, so make sure to join the Healthy Rebellion before then if you want to get it in on this.

Nicki: And that's at join.thehealthyrebellion.com. Robb, what do you got for us for our, what do you have for us? What do you got? What do you got for us today, news piece.

Robb: We're channeling a little bit of Beastie Boys there for a minute. I almost hesitated to pull this one up because we beat on these kind of retrospective epidemiological studies all the time and then it's like oh, we have one that supports our position and whatever. So we'll go with the confirmation bias, however it plays out. But it appeared in the annals of internal medicine red and processed meat consumption, and risk for all cause mortality and cardio-metabolic outcomes. A systematic review and meta-analysis of cohort studies.

Robb: It was a massive paper and it was just published November, or it's due out, no it was published November 19th, 2019. So pretty darn new paper and it created a pretty good stir. This one and then some of the rebuttal around the EAT-lancet piece, which was ... basically it was making the case that pulling meat out of the diet was going to cause people to overeat, leave them nutrient deficient. We've had a few modest wins on this

stuff, at least I feel like some more ... And again it's so funny, because everybody's just fucking biased.

Robb: It's like well, it support our position, so it's got to be right. You know I don't even-

Nicki: You're scientists aren't, my scientists are right, your scientists are wrong.

Robb: Yeah. This is a whole funny-

Nicki: It's like what happened to the scientific method and having, I don't know. It just feels like everybody has their scientists on their team, and it's just this on going battle.

Robb: Yeah, it's funny, do to I'm having this existential crisis here, in front of everybody. The MO right now is to just fucking barrel forward. This is the way it is, this is what the data proves. And it's always, there's some element of interpretation and there's limitations. Nothing's perfect, but then at the same time, if I don't present this with absolute certitude ... The way to win this stuff is to just present it with certitude. This is the fucking way it is.

Robb: And then if you try to maintain some degree of scientific grounding, then it's like no, we don't know it all. And this is interesting but what could some of the limitations be. Then it's like wow, they're not really too sure, so I'm honestly ... I'm having a moment here.

Robb: But anyways so, it was a great paper, we'll post it in the show notes, it is open access. But the conclusion out of the whole thing, the magnitude between red and processed meat consumption all cause mortality and adverse cardio-metabolic outcomes is very small, and the evidence is of low certainty.

Robb: So they're saying that, to the degree that there might be something here. The effect is tiny. And even then this is an artifact of having shitty base material to pull from. Which is basically these food frequency questionnaires and recollections, to say nothing of the statistical torturing that occurs to get one of these effects. This is nothing on par with looking at the epidemiology of smoking or even, we've been, I've been sharing some stuff with you on sunlight exposure. And I'll share this at some point later, but there was a study that looked at sun exposure in smokers versus non-smokers, and the sunlight exposure was so beneficial, it was as if the smokers were not smokers. They were as healthy as non-smokers.

Nicki: So if you're going to smoke, lay out in the sun.

Robb: Yeah, yeah, oddly enough. Or maybe smoke while in the sun. But the effect there was profound. It wasn't nominal, you didn't need a bunch of statistical torturing to be able to get this kind of agenda. So yeah. But it's funny. So within this vegan battle and everything that's kind of going on, is this front that comes out of things, like game changers and stuff like that. It's just this wall of certitude, and so I've actually been trying to counter that in some ways with less certitude. Being more conservative and like well, here's the limitations.

Robb: This will be something interesting just for the listens. Give us some feedback on that, because I don't ever want to be in an echo chamber. I don't ever want to be so beholdng to a particular-

Nicki: Position.

Robb: Yeah position that it-

Nicki: Because information changes, and you get new data and you get new information, and so you have to be able to ... and that's where this-

Robb: No you don't have to.

Nicki: Well, okay.

Robb: You can just pick a world view and just fucking steamroll it. That's kind of what I'm saying. And what's interesting about this, is the people that are kind of winning, at least in the short-term under the current circumstances like this. It's just certitude, everything is known, all the shit's all buttoned up. Do I have everything plugged in that needs to be plugged in, yes I do. Okay. That's good. Sorry I looked down at our pile of cords and there was something that wasn't plugged in. But it's fine.

Nicki: A dangler.

Robb: Yeah, we had a dangling- So anyway, totally off topic there, but it's interesting.

Nicki: It seems like there should be some gold standard of scientific study. How does the average person make sense of this? You've talked about differences between epidemiological studies and randomized control trials and all these different types of studies. The average person doesn't know the different between them and which one is more valuable than another. And especially when you have vegans with, touting their epidemiological studies as being the gold standard when other people in science don't believe that's the gold standard. How do we move forward? What's the answer in science? Shouldn't there be some ... we did this study and five other teams replicated it, so this is, as far as we know, with the information we have and what we were studying, this is good to go. Gold stamp. How could we move forward?

Robb: There have been these things called Cochran reviews, where they, this Cochran group get together and they kind of grab everything that's available. And it gets shifted or sifted or triaged based off the type of research. So if it's a randomized clinical intervention, double blinded, that's kind of like gold standard stuff. And it gets weighted heavier than even things like this paper, which are more retrospective epidemiological based type research.

Robb: But there was recently some suggestion that the Cochran process is maybe not as integrated as what we would like. That there may be some kind of issues there. I think at a minimum when we look at this stuff, we can use possibly this ancestral health model or a general kind of world view. The vegans kind of look at blue zones. The more ancestral health folks look more at Kitavans and Okinawans and go forward from there.

Robb: And then we have these review papers, epidemiological in nature, then we start getting into animals trials and then human trials, and so there is a way to kind of order and rank this stuff. When there's a claim that, like there's current thing going around, James Wilkes is pushing this, the notion that meat eating causes-

Nicki: Erectile dysfunction.

Robb: Erectile dysfunction. And this is genius marketing on the part of the game changer people. And I don't know how we got out on this diversion, but we're here.

Nicki: I don't know. It is genius because, I feel, well I could be wrong. But it seems like women gravitate towards plant based more than men, I don't know. But then-

Robb: Well in the messaging-

Nicki: Pulling out the erectile dysfunction piece. Any guy that is eh, no, I'm not, I'll definitely add more veggies but I'm going to keep my meat. But as soon as a guy hears erectile dysfunction, then it's like plant based. Here I go.

Robb: Right. In the study that is being cited or the process that is being cited on that, and I'll do a full breakdown. It is bullshit. The claims around that vascular epithelial function is so taken out of context. But it is fucking genius, the way that they stacked all this stuff up. And historically, the more vegan based agenda has been more kind of a caregiver, more feminine kind of angle, but as part of the game changers, they're talking about gladiators are fucking bad asses. So of course, you go, eat like a gladiator, which that was all taken out of context.

Robb: Any guy that is not concerned about his penis not working may be close enough to death that it doesn't really matter at that point. And so that's a beautiful way to sow some concern around this. Yeah, yeah. So I will circle back around and touch on that but-

Nicki: We should. Maybe we can make that a news topic for-

Robb: We can do that, the news topic next time.

Nicki: For the next-

Robb: But I will also tackle that one in the lab, because I want to really thoroughly detail, what are they claiming. Here's the process they used, and then let's look at all this other stuff in some context, so yeah. See I just diverted us into a whole podcast worth of goofiness. But again, I would request of you folks. You guys are following us, you're supporting us. What is a reasonable position to take on all this? I get that if I just presented this iron wall of certitude, we might actually be better, but in my experience having had multiple mentors pull this card and kind of go to crazy land and cease to be able to learn and adapt.

Robb: On the one hand you could make the case that it's, well for the movement you kind of want this. But then at the same time, as soon as you adopt that position, you're learning and evolution stops. You've basically written who you are and what you're about into a stone tablet, and that's it. You are a fossil at that point. So what's the trade-off there with trying to move an agenda forward that I think is reasonable. But even then, this is where I'm hesitating. It's like well, it's our opinion on it, so I don't know.

Robb: I'm so betwixt and between about that, other than I'm pretty sure that evolution, economics and thermodynamics are going to win the date. The fact that a plane flies does not violate the laws of physics. It operates within the laws of physics. It is not defying gravity, it's working within the parameters of gravity using aerodynamics. And all of this stuff kind of links back together. The energy inputs, the economics, the evolutionary medical or species appropriate diet kind of perspective, all of that matters. So maybe I do need to be a little bit more certain about that.

Robb: Anyway I'll shut up, we'll keep going.

Nicki: Let's do our-

Robb: We really are probably down to six listeners at this point, so.

Nicki: Let's do our review t-shirt winner announcement. We've got a review from Elmas. Healthy guts of the world unite. No dietary agenda, no making you feel guilty about eating mistakes. Just a lot of knowledge of a very complicated topic, nutrition, explained in a way everyone can understand. I thank you, my healthy gut thanks you.

Robb: And our healthy guts say thank you to you.

Nicki: And no dietary agenda, right.

Robb: Maybe no, okay.

Nicki: She appreciates that. Elmas, thank you for review. We'd love to send you a Healthy Rebellion Radio t-shirt, so shoot us an email over to hello@robbwolf.com with your t-shirt size and your mailing address and we'll get that shipped off.

Robb: Sweet.

Nicki: Yeah. All right. This episode of the Healthy Rebellion Radio is sponsored by Perfect Keto. Fuel your low carb lifestyle with Perfect Keto's line of snacks and supplements. You can use their ketones or MCT oil powder to energize for a workout, a work session, or whatever life throws your way. Exogenous ketones notoriously taste awful, but Perfect Keto comes in delicious chocolate sea salt and peaches and cream flavors that go in almost beverage and taste great. Coffee, you can even put it up in just plain water.

Nicki: Now Robb, exogenous ketones can be super powerful in certain situations. When do you think someone might want to use them?

Robb: Yeah they're oftentimes touted as a weight loss aid. To the degree that I'm comfortable with that are studies that look mainly at a mixed food diet that is calorically balanced but the fat source in one of the arms of this was mainly MCT oil. And it produced noticeable measurable degree of ketosis. And what happened is that subsequent meals, folks spontaneously reduced calorie intake. So I think that there's some potential efficacy around that notion, that so long as we're paying attention to what we're eating and we use this to maybe offset some other caloric intake, then it may, that state of ketosis of that comes about from MCT, possibly also the beta hydroxybutyrate salts, may stave off hunger later and so we spontaneously reduce food intake.

Robb: But I like to be careful with that. Some folks in the industry have been very fast and loose with the claims they make around that, this is one of the reasons why I like Perfect Keto. They've actually had their feet on the ground and are reasonable in the way that they tackle this.

Nicki: Also great for folks that have had any kind of brain, traumatic brain injury-

Robb: Yeah the traumatic brain injury deal, yeah.

Nicki: Concussions.

Robb: Yeah, yeah. And this is a controversial topic, it hasn't been well researched. But I could make the case that where all of these types of products should absolutely shine, every youth sports first aid kit should have multiple packets of some sort of a ketone ester, a ketone salt, an MCT ketone salt combo or something like that. And a kid gets their bell rung and they should be on some sort of a protocol like that.

Robb: Now again, we don't have research to support this. I think that there is some work underway to show that the potential efficacy there, but just mechanistically it makes a lot of sense for helping them mitigate that kind of post-concussion syndrome. So that's one place that it's kind of like man, this stuff could really shine.

Nicki: Right, right. All right, you guys can go to perfectketo.com/rebellion10, and use code rebellion 10 for \$10 off orders of \$40 or more.

Nicki: And now, Robby, we've got our questions for the week.

Robb: "Robby, I love ya kid."

Nicki: Robby. Okay. Paleo MREs. Matt says, "I've been in the military for about five years now. I joined later in life and after I was introduced to paleo, keto, and low carb. Let me tell you, the DOD approach to nutrition is pretty bad. Outside of some interesting studies they're pursuing, they still stick to the standard info where you're used to hearing of low fat, high carb, chocolate milk for recovery, Gatorade to rehydrate. We were force fed Gatorade at the last school I went to in San Antonio. I would put element in my water and a tiny bit of Gatorade powder just to change the water's color." Nice.

Nicki: "With the ever increasing number of product lines that exist that cater to paleo low carb real food crowd, could there ever come a time when a paleo MRE product could be developed that would be low cost enough to compete for a government contract with the trash that's out there now? MREs are full of sugar and food with a long shelf life that have some serious GI consequences that, let's just say, take an individual from one extreme to the other when it comes to bathroom utilization.

Nicki: The beverage powders are just plain Gatorade, the fat sources are usually peanuts, the protein is nearly non-existent and the energy bars are incredibly high glycemic. About an hour after consuming one most people just want to put a diaper on take a long nap. I know there are several paleo MREs available commercially, but in my experience that don't address the caloric needs of a soldier in the field and consist primarily of jerky, nuts and dried food. When you look at a cost to calorie ration, they don't really pan out too well."

Robb: Yeah, this is a tough one. Where processed carbs and sugar and high fructose corn syrup shine-

Nicki: Shelf life.

Robb: Is massive shelf life products. Something that could go from below freezing to 140 degrees because it's in a shipping container, and back and forth, and then you can still rip it open and it's essentially edible. That's a tough one to compete with. Ages ago we tried developing some stuff around this and it's ... This is just a story where, and it stinks because folks generally in the military don't get paid a ton of money, and so ... Personally supplementing what your kit is, is probably the most effective way of going about doing this.

Robb: So what people will do they'll, like he alluded to, these MREs will have a thing of peanut butter and then cake and some other things and people will pull out the peanut butter. They basically will swap out as much as they can so they supplement the base MRE and they will trade other people, like hey I'll give you the cake for your peanut butter and stuff like that.

Robb: And so your buddy's going to keel over from diabetes and poop themselves, but you may be okay, but those are kind of the options out there. The interesting thing is, at some points the government's going to have to figure out that it's super expensive to feed people poorly, and even, and it's more expensive to feed them poorly than-

Nicki: Feed them well?

Robb: But this is another one of these things, we've talked about this, with the risk assessment program. Most companies these days, these get out in the weeds a little bit, but one of the challenges of getting a company to invest in its workforce is that the workforce is generally a very mobile. People on average stay at a job less than four years now. So employers are frequently engaging in this game of hot potato, where they just hope that the person has a catastrophic even when they're somewhere else. And so there's the fact that the people aren't there for 30 years and getting the golden watch retirement handshake. There's not the impetus to invest in folks, and so even within the military, generally people are not career military. People that are career military tend to take their health more seriously and do different things. And so it's a really tough deal but at some point, there's probably going to be a breakdown in just ... They're finding it difficult to even field an adequate force because of how deconditioned and metabolically broken people are.

Robb: So I don't know. At some point the cost of doing this poorly is going to be such that it will be reasonable to at least do it better, but in the interim folks just need to figure out ways of supplementing the kit that they have, yeah.

Nicki: Got it. All right our next question is around anxiety and college student food. Cole says, "Hey Robb and Nicki. Recently I've been struggling with stress and anxiety. Started about four months ago when I was preparing and being interviewed for a job which was very stressful. A random thought ended up becoming an unwanted intrusive thought which caused lots of debilitating distress, stress, and anxiety. I ended up losing about 10 pounds unintentionally, begun getting the chills and shivering in the mornings. Lost my appetite, and I'm still struggling with the chills and shivers in the morning, but my anxiety and stress levels have dropped. My mind has also gotten more clear."

Nicki: I'm not going to lie, during this time, or during the time this happened, I was not eating too well. About three years ago I lost 100 pounds with a non-paleo low carb approach that was clean-ish. I've maintained it since then. My 21st birthday was around this time and I did drink quite a bit, but I have limited usage to once a week. I like paleo. I cleaned up my diet quite a bit and I feel this had made a difference. Should I stick with paleo, go low carb or even keto? Thank you for your help and please let me know what you think."

Robb: What's your thought on this?

Nicki: It's kind of hard to know exactly what his question is. He's wanting to know what dietary approach he should go, sounds like he had some stress that has resolved for the most part-

Robb: Somewhat, yeah.

Nicki: The chills and shivers, which sounds like he still has that, I'm not quite sure what that could be contributing to that.

Robb: One, I would definitely go get checked out by a doctor, just a general physical to kind of get a baseline-

Nicki: Yeah that doesn't seem normal.

Robb: That's concerning. And then above and beyond that, ticking the box of okay, you don't have something life threatening going on here. It's really hard, when we get stressed, usually shitty eating is the time expedient thing to do, without a doubt. We feel that, like the last couple months, moving, homeschooling, all this stuff. But it's also the time that you have to double down. You have to make that the priority, because it's a additive stress. And eating really poorly, if you want to break something ... that and then poor sleep. And usually the poor sleep goes hand in hand with all this stuff.

Robb: So for Cole, I don't know if you should go paleo or low carb or keto. I would pick whichever one of those you feel like is this easiest one for you to do. If you were eating really poorly and now ... any movement in a good direction is probably going to be favorable. I would probably throw in some fish oil because there's some great research that suggests that that can be helpful, maybe two to three grams of EPA DHA a day. I would-

Nicki: He lost 100 pounds, so I don't know if he's at his ideal body weight currently, but if that's the case then focus on nutrient density, and do the best that you can with ... I'm assuming you're eating at a college cafeteria, or I don't know if you live off campus, or what you're kind of cooking kitchen situation looks like. I think you can only win if you focus on quality foods, nutrient density.

Robb: Yeah. Yep. Absolutely. And again that could be paleo, that could be low carb, that could be Mediterranean. There's a lot of ways to do that, but avoiding processed food, maybe stacking the deck in your favor, putting more calories earlier in the day, fewer calories later in the day, and it's tough being in school. If you can get to bed earlier and deal with the circadian rhythm. Get out in the sun if you can-

Nicki: Get sun on your body and in your eyes, yep.

Robb: If you can study outside at all. Those things would be big wins. And I would definitely pick up a copy of Emily Fletcher's book, Stress Less, Achieve More-

Nicki: Yep, great recommendation.

Robb: And I would religiously do that, twice a day. It's 15 minutes in the morning, 15 minute in the afternoon. But man, had I not been doing that the last six months ... I'm already a dick. Nicki will fully attest to that. We've been under more stress, getting-

Nicki: Moving halfway across the country, yeah.

Robb: Home schooling, no social network, relaunching, completely changing our whole business model. Putting one podcast to bed, opening up a new one, and that meditation has been ... when I do it now, when I'm actually ... Sometimes it's kind of hard. I'm like

"Oh, I really wish I could just go sit down and start working" or whatever. But I sit down and I start doing them, I'm like, "I don't want to do anything else. I just want to stay here and do this all day." But then about 15 minutes of it, it's kind of funny, just internal clock, it's like a timer goes off, I look at the clock, I'm right at 15 to 20 minutes, and it is a life changer. I can't say game changer because that term is befouled now. It is dirty and befouled but it is a life changer.

Robb: So Cole, find the dietary approach that you can manage, anything is going to be better than total off the rails hookers and cocaine deal.

Nicki: Go to the medical center on campus and see what's going on with your chills.

Robb: Get checked out, get a basic physical, just to tick the box on that. Address your sleep hygiene, circadian biology, and then get that book.

Nicki: And then let us know.

Robb: Yeah definitely circle back.

Nicki: Afterwards report back, yeah.

Nicki: Okay. Aneal has a question on ketogenic diet after having had an attack of pancreatitis. I have implemented the PKD diet, but I've been struggling with the two to one animal fat to protein ratio. Prior to this I was on the classic keto diet and also struggled with animal fats. Fatty cuts of meat, bone marrow for example. But never had a problem with avocados, nuts, or raw milk and fatty cheese. I've had an attack of pancreatitis four years ago, which also, and also became diabetic. But reversed all of that naturally via the keto diet, but I still struggle with diet issues. Could this be linked to the attack of pancreatitis? If so, why just animal fats and not other fats? I also did my fecal elastase test, fat in the stools et cetera which were normal.

Nicki: Also a CT scan of the pancreas did not show any abnormality. So what gives?

Robb: And we've both gallbladder issues and pancreatitis, we've seen it post-gluten exposure. This is a big deal. So I would be curious, was there any focal motor long reading, paleo or keto or whatever, and then they go to ... We had a client that he, Straus. He went to a party and he's like "Oh fuck you guys"-

Nicki: He ate a bunch of gluten and then had serious appendix-

Robb: And he ate a thing of bread and his appendix went bananas and he had to have it taken out. And we've seen that a lot, and it kind of begs the question, are you setting people up for frailty on that? And it's like, I don't know, their gut heals, and then you get a more profound gut response with this. And so, what's the cost benefit story there, I don't know.

Robb: Couple of thoughts on this. So what Aneal is referring to, the PKD, is the paleo ketogenic diet, which the paleomedicina folks in Hungary have produced, and they have some really impressive results in some different areas. They have some approaches with type 1 diabetes that make the folks in the type 1 Grit community absolutely crazy. They don't agree with it and they're not big fans. I think that they're maybe a little bit out of their element on that specifically, and the interesting thing is the paleo ketogenic diet, the

way that they set it up. It's a low protein very high fat diet. And it works great for some people. It's absolutely amazing.

Robb: It's pretty much carnivore, for the most part, and then they will introduce some amounts of plant material based off your tolerance and whatnot. But depending on what you have going on, a high protein low carb approach like the Bernstein approach, like keto gains, like what we recommend in the keto master class, is oftentimes a very viable option. If we're not specifically driving the boat to generate ketones, if we just want to feel good or have normal blood sugar levels, that's largely where I've settled out. I'm eating significant amounts of protein, I keep carbs pretty modest, and then the fat isn't sky high and my digestion is better and I poop better and all the rest of that stuff.

Robb: So I would look at potentially increasing-

Nicki: Dropping fat and increasing protein.

Robb: Yeah dropping fat, increasing the protein, finding sources that work for you, and also like always with this stuff, if you tolerate carbs or certain types of carbs, then why are you specifically omitting them? I stick in some berries, I stick in a little bit of squash, I drop in a little bit but I've just kind of noticed that 20 grams of effective carbohydrate a meal is kind of where I kind of top out with still feeling good and I suspect I'm probably still at least somewhat ketonic. And I don't do that every meal, but if I'm going to do some harder training I will do more of that throughout the day. But there are a lot of ways that we could tweak this instead of just being totally beholden to this two to one protein to fat ratio. Yeah.

Nicki: Let's see. Our next question of the week is from keto KJ, and he's wondering if he's metabolically flexible. Question.

Nicki: Low carb keto for two years. If I indulge in a high carb high fat treat, I expect to feel horrible, but I don't. Does that mean I am metabolically flexible, or still insulin resistant? So I had a fried pie with ice cream. Special place we stop in Georgia, and I eat meat heavy low carb and I'm always surprised that I don't feel the discomfort most talk about. No bloat, no headache, no stomachache, I kind of wish I did.

Robb: No, you don't, because it sucks. Yeah I think that this is a pretty classic example of someone likely being metabolically flexible. The subjective element to this of not feeling terrible after an event is not 100% ironclad. If we did a little bit of blood sugar monitoring within the story and looked at some labs we might see some stuff that we're like "oh wow." Could be a scenario in which you don't necessarily feel bad but some super gnarly bad stuff is happening. But I would 90, 95% likelihood say keto KJ-

Nicki: Keto KJ.

Robb: Is likely like you, where he's got a lot, or she, has a ton of latitude on this. I will throw out there that a lot of this can be youth-

Nicki: Switch, yeah, we don't know how old you are.

Robb: Yeah if you're 19, 24 years old, then it's like yeah we would ... unless you've been eating like a train wreck, all the way wrong, which a lot of people unfortunately do, then we would really expect this. And you let three to five years go by, high stress job, have some

kids, disordered sleep and that stuff can change on a dime. So this is where using both the subjective and objective measures, how do you look, how do you feel, how do you perform, what's your cognition like after a meal, what's your digestion like and all that stuff. But if you're motoring along and you're doing pretty good, kick your heels up, have some fun where you can, but just keep some eyes open that when you get old-

Nicki: Pay attention, does it make you crave these types of foods after or-

Robb: Right, do you spiral back in? Yeah...

Nicki: Are you able to have one and you're good and you go back to eating your low carb keto without any cravings. Because for some people, maybe they don't feel bad, but it triggers-

Robb: The feet forward.

Nicki: The feet forward mechanism of wanting to eat more and more sugary yet tasty treats. Let's see. Our last question this week is from Shannon.

Nicki: I'm interested in hearing your thoughts on this. How do you say that?

Robb: Genistein?

Nicki: Genistein, genistein soy. My name is Shannon and I have one of your books, wanting to buy more, and I love your podcast. Such great info. Anyways, I got an email from Green Med info newsletter, and one of the articles was talking about the health benefits of a nutrient found in soy to help with bone density. Everything I've read and understood about soy is not good. I'm curious to know your thoughts on this article because I assume people, women especially, will be running to the store to buy this to quote, "Increase bone density." I'd love to hear you go into this on one of your podcasts, thank you for your time and keep up the good work.

Robb: Yeah, so genistein is one of the soy isoflavones that are a xenoestrogen. They're basically phytoestrogen. And so estrogen is really important in bone mineral density. So one of the things that can happen, both in menopausal women or andropause men or men that maybe are on testosterone replacement therapy but they're using an [romatas 00:37:46] inhibitor to keep estrogen from getting too high, they can actually push it too low and fracture rates can dramatically increase. So you can lose bone mineral density on that.

Robb: To a mild degree, what's happening in a scenario like this is that the genistein can act as an estrogen. It is effectively a form of phytoestrogen and it can have that estrogenic effect. I think that there are other ways around this that one can employ to work around this, high protein diet, resistance training, proper ADK levels on supplementation, those are all very effective. But this is something where, let's say we have a peri or post menopausal woman and they might consider some type of bioidentical hormone replacement to get this estrogen effect. And I think that in that scenario you're getting a more targeted dose, it's more easily monitored, and also there are some concerns around, say thyroid being antagonized from soy products and whatnot.

Robb: So there are some other ways around that but at the end of the day, this is one of those interesting things where I would generally categorize soy as a potentially really problematic food, but there are circumstances in which the consumption of soy may

offer some benefit. In some PCOS scenarios and other scenarios where estrogen levels are actually too high, where women are estrogen dominant, consumption of things like these soy isoflavones mitigate the effects of high estrogen levels because they're a competitive inhibitor. They bond to the estrogen receptor, but they bond to it less tightly and cause less activation than estrogen itself. Estradiol and whatnot.

Robb: So both can provide some effect if you have no or low estrogen, but it can also blunt the effect of estrogen at high levels. And this is again where shit is kind of nuanced and it's really situationally specific as to what's going on. Now with women that estrogen dominant, usually we've got some form of insulin resistance that is a big driver in that direction and mitigating the insulin resistance will largely address the estrogen dominance that we see out of that PCOS kind of scenario. So, yeah.

Nicki: Okay. Complicated.

Robb: So it could be good. It kind of is, and this is where I'm a fan of some testing, some people go kind of crazy, but establishing a baseline of androgens, thyroid, that makes a ton of sense. Doing some sort of an LPIR score, lipoprotein insulin resistance score, just to have a benchmark and then you can ...

Robb: At least when you update it then, if something has gone totally sideways or if you look, feel, perform worse, then we can at least look at where you were previously and then say "Well, those look good," now we update it, and then we see something that goes sideways because again, even within the hormone levels ... I've talked to docs that, there are guys that motor along great, had a total testosterone of like 200, 300, and they do well. And then there's other guys that need to be at like 1100, 1200, or they feel horrible. If they're running at six or seven or 800, they feel much, much less well. So, yeah.

Nicki: Interesting. All right. That was our final question for the week. Remember to check out Perfect Keto, the sponsor of today's episode. As a reminder you can go to perfectketo.com/rebellion10 and use code rebellion10 for \$10 off orders of \$40 or more, and we'd ask you to share this episode if something in this show helped you, please share this episode with your friends. Please subscribe, leave us a review, wherever you go for your podcast experience and-

Robb: The reviews make a huge difference in other folks just kicking the tires on it and giving it a shot.

Nicki: And listening to the show, yep.

Robb: Yep, yep.

Nicki: And lastly remember now is the time to join us in the Healthy Rebellion. So go to join.thehealthyrebellion.com, and you'll be right in time to participate in our January rebel reset and seven day carb test.

Robb: Hope to see you there.

Nicki: All right guys, take care.

Robb: Buh-bye.

