

**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 bunch, well, there's always Disney+.

**Robb:** How we doing wife?

**Nicki:** Good. This is-

**Robb:** Howdy everybody in the rebellion.

**Nicki:** Yeah. Howdy everybody. This is episode 50 of The Healthy Rebellion Radio.

**Robb:** Wow.

**Nicki:** Not including salty talks because we kind of count those separately. So 50 Q&As. Kind of a milestone.

**Robb:** It's kind of a milestone of sorts. Another milestone, we're a little bit over a week of delousing ourselves from social media off of our phones and I've barely been back on even on my desktop. I poke my nose in and I've got to say, it almost immediately gives me a rash. There's awesome shit going on in the rebellion and wonderful people and no drama and I'm happier. And I'll just emphasize again, if this is career suicide, then fuck it. This isn't what I'm supposed to do. Helping people isn't my ... Or at least in this capacity isn't what the universe has in mind for me and I'm cool with that.

**Nicki:** The interesting thing and kind of reassuring thing or reaffirming, I don't know what right word is, but we've received actually several emails from listeners and thank you for those of you that have written in and said that you also have done it or have done it previously and just the difference it's made in your life. Or that our discussion about The Social Dilemma and then you subsequently watched it and are making a similar move because you're recognizing that it's chewing up time that you could otherwise be spending with people you love or doing things that you're interested in doing and it just kind of sucks you into a black whole so it's been kind of cool.

**Robb:** Our coach John Frankel came to town and we talked to him about this. And apparently he just deleted everything.

**Nicki:** Oh, I didn't know that. Okay.

**Robb:** He did a post on Facebook and tagged me and I did my very cursory sprint through Facebook. I have all notifications turned off on all of the stuff, have really for a long time. But he said that he did the same thing. Pulled the final social media platforms off of his phone. He's like I feel better immediately. One of the guys that commented in there, he had an interesting comment. He said, "Well, one, I want to stay connected with people that I care about and two, isn't this just going to move us into an echo chamber?" And I replied, I'm like, "It's an interesting question." On the stay connected, do whatever you want to do. But I feel like doing this stuff from the desktop, you can get

into a scroll fest but it's very, very different. You don't carry the desktop into the bathroom with you. You don't use it in the five minutes when you're standing in line at the store to just be disconnected from the world around you.

**Nicki:** Instead, you look around and you smile.

**Robb:** You maybe make eye contact and ask somebody a question and crazy stuff like that. I made the point that on the echo chamber side of this, that's exactly what these platforms are. We're not staying better informed. These things learn our preferences, feed us mainly our preferences and then they feed us just enough irritating shit so that we get inflamed and then go share it or push back or grab our pitchforks and rally. And so I'm really not sold on the whole notion of like you're just going to end up in an echo chamber. I think we already are largely in an echo chamber. Something I have done is I subscribe to a couple of different news outlets. Mainly sticking with more long form type stuff like The Atlantic and a couple of other things. And I've tried to get some things that are self described as centrist, self described as kind of right leaning and self described as kind of left leaning. And I'm doing that to support journalism because when we shifted down this path of making everything seemingly free, this was another ... When people have this notion that information should be free then the information producers on the back end are basically destitute. And so then we're left with ads and clickbait and all that stuff.

**Robb:** So a way to start unfucking this situation is to actually patronize people that are doing good work. Now, who's doing good work? I don't know. Follow your own judgment on that. Like I'm following The Dispatch and I paid for their kind of upgraded deal. And I would say they describe themselves as centrist, but I would also put them a little bit on the left leaning side of the deal. I follow Mises and Cato Institute and paid for some of their upgrade stuff in the more kind of libertarian right leaning. And then for long form stuff I've always appreciated The Atlantic which I feel like has kind of catered to both sides of the world. If you folks do similar things or have similar stuff that you follow, let us know. But I've kind of set up a little bit of a budget. It's like five bucks here, five bucks there, which clearly can add up. But if all of us patronize good journalism and journalism that isn't just let's find the two most extreme individuals on a topic and that somehow that meets us in the middle, that's bullshit.

**Robb:** We have a friend who's a journalism professor and I never got to hold his feet to the fire on this. What are you guys doing in these classes because that doesn't strike me as journalism? I've been on the receiving end of enough interviews where the goal was simply, I was the extremist on one side and then they interviewed the extremist on the other side.

**Nicki:** You extreme meat eating proponent-

**Robb:** And that's not journalism. That's not actually learning particularly about a topic or finding nuance. And good journalism or good writing ... Like Charles Mann. His books 1491 and The Wizard and the Prophet. Fuck, that guy does good work. It's not just trying to go two sides of a story. There's oftentimes like 50 different stories going on and angles. It's not an either or thing. I've just been noodling on the reality that I want to put time, money and scull sweat into supporting folks that go that extra mile. I feel like we do the same. We're more in this kind of health genre and so that's mainly where I put the bulk of my thoughts. But I get a lot of interesting ideas reading things in economics and ecology and physics and whatnot. If it's just protein, carbs and fat, I feel like my brain just kind of rots. Whereas if I'm looking at things, even art or philosophy or

something like that, I get some ideas that I'm able to hopefully then dovetail back into this stuff.

**Robb:** So anyway, yeah, I'm much happier. I believe both of us are significantly happier. We're doing still "a lot of work" but I feel like we have more spare time at the end of the day because we're just not frittering. I'm just stunned with how much time we frittered away.

**Nicki:** It's one of those things where you don't realize it. And we didn't even take our phones into the bedroom at night.

**Robb:** Yeah. Yeah.

**Nicki:** There was no scrolling in bed or anything like that. But just like you mentioned, standing in line anywhere, waiting in your care to pick somebody up, any of those sort of dead moments where otherwise you could just be sitting there thinking.

**Robb:** Which the irony is that's not dead moments, that's-

**Nicki:** It's not a dead moment, that's life.

**Robb:** That's your life.

**Nicki:** Right. I know. But it seems like people are trying to ... Us included. You're using that time where you could be thinking or having a conversation or just looking out the window at the world around you and marveling at oh wow, there's a hummingbird or something. Instead you're just-

**Robb:** Absorbed.

**Nicki:** Infinite scroll. Yeah.

**Robb:** So it's been good. It's been good. We would love to hear from you folks about that if you haven't caught that Social Dilemma podcast. Or that's a salty talk.

**Nicki:** That's a salty talk. Yep.

**Robb:** I would recommend checking it out. I would recommend checking out the film. It's definitely worth a look. If you have kids it's really worth a look. Like there's some ... As we mention in that, just the suicide and self harm things that are happening to teens and pre teens. 500% increases in like a four year period and stuff like that. It's just terrifying. And again, I don't know what all the right answers are but what do we do with food that gives us problems? We limit our exposure to it. And I would look at this stuff as like a toxicant, an irritant. It's not to say it can't play a role. It's not to say it can't be a tool. But I think you also really want to be smart about how you limit your access. Just in closing, not to beat this thing to death. This show isn't a salty talk. But I've figured out some hacks ... Even though I haven't actually done it. But I've figured out some hacks for being able to post from the desktop onto say like Instagram. It's a complete pain in the ass. It's totally inelegant. They are building these things to be as amenable to the phone as possible. And that's because we have these damn things with us all the time.

**Robb:** It just sucks you in and it is a cocaine-esk. It is like rice crispy treats with a dusting of cocaine. I used to nest all of my social stuff in this little thing called Social. And now the

only thing in there is The Healthy Rebellion. But what's interesting, I'll check the weather because in Texas you actually do need to do that because you don't know if it's going to be hot or cold from hour to hour. But I'll check the weather, I go out of that, and then I have this immediate ... Bam, I'll jump over to Social with the notion that I'll open up Instagram, at least give it a couple of scrolls. Oh, what hot girls are in here today? Or whatever. And so I still do that but then it's just like oh, there's nothing in here. And then maybe I'll actually jump into the rebellion and do something there. Although, I prefer doing that on the desktop too. I would say that we're kind of neurotically aware of this stuff above and beyond what a lot of people probably are. And we are completely sucked into this. So yeah.

**Nicki:** Do you want to share ... Like you mentioned John Frankel. We did have a surprise visit from him this weekend. He was supposed to come. So John is our jiu-jitsu coach and he lives in Korea. And he is on sabbatical this year so he came to the states in July and spending the whole year here. He's American, lives in Korea as a professor there in Seoul. And he spent the first three months in Montana and then was supposed to be here-

**Robb:** Once it started cooling off here he was going to come, yeah.

**Nicki:** All of October and some of November but then he had to return to Korea to take care of some family matters.

**Robb:** For some family stuff, yeah.

**Nicki:** And so we didn't think we were going to see him. And last Friday we got word that he was coming to town for 24 hours. So we did get to hang out with him which was awesome. And Robb and Micheal, the owner here of SBG Texas, were both advanced to brown belt, which is really awesome.

**Robb:** Which is a sign of the terrible decline in quality within jiu-jitsu and my beautiful wife was advanced to the long overdue status of blue belt in Brazilian jiu-jitsu so congratulations.

**Nicki:** That was super exciting.

**Robb:** Super cool. Yeah.

**Nicki:** Yeah. It was a quick little surprise-

**Robb:** It was like a drive by mugging though. It was the oddest thing. Usually in belt promotions if your instructor is more local, they're thinking about it. They order some belts. There's usually some people there. There might be like an iron man where you roll with a bunch of people and stuff like that. Or at a minimum, there's a belt there but John was basically like, "You guys are advanced." And then we had to order our own belts. It was the oddest belt promotion I've ever experienced but very, very cool. Super excited.

**Nicki:** He will be back hopefully in January or February and we get to spend-

**Robb:** And we will have a seminar with him then.

**Nicki:** Some legitimate time with him. And yeah, anybody who is into Brazilian jiu-jitsu, when we do announce the seminar date, he is an amazing, amazing coach.

**Robb:** We spent an hour with him and we didn't even ask that many questions but we have enough material to tinker with for a good three to six months, just refining the things that we fiddle with.

**Nicki:** Really cool little refinements. Yeah. Yeah. That was super fun. What else? We are wrapping up the movement week in The Healthy Rebellion in our 30 day rebel reset so that's going really, really well.

**Robb:** Folks are crushing it.

**Nicki:** Folks are motoring. And then next week will be week four which is community so we'll be talking all things community, especially in this day and age where it's somewhat challenging depending on where you live and what kind of restrictions are still in place.

**Robb:** And it kind of circles back to social media. Like that is in some ways a way to at least kind of feel connected. Again, there's some legit features to the option of virtual connectivity but I think we just have to be careful with it. Yeah. Yeah.

**Nicki:** Okay. Let's see hubs, what do you have for our news topic today?

**Robb:** What is this thing? Oh yeah. So there's been a decent hubbub. Some sparkling water brands have PFAS chemicals study finds. These are like a polyfluorinated chemical. And there's been a good amount of hubbub. Like Ronda Patrick posted something. I haven't read what she posted but some people were freaking out in particular because Topo Chico was one of the things mentioned here. I have not dug in the toxicology of this stuff but it's worth mentioning that what they're identifying in these waters is in parts per trillion. And it's like, four parts per trillion, six parts for trillion. And this is one of the challenges that we're facing with our increasing ability to identify things at ever smaller levels. My gut sense is that the amount of these things, like six parts per trillion and whatnot are trivial. Like absolutely trivial. I could be wrong. And again, I'm actually going to do a salty talk on this and dig in and look at the toxicology. What are the possible knock on effects? Like do these things do competitive inhibition? Are they actually carcinogenic substances? What are the potential problems here? But this strikes me as ...

**Robb:** There's this deal with proposition 65 in California where there's certain acceptable levels for lead and arsenic and different things. And like lead and arsenic are gnarly things and they are naturally occurring substances. And now rice raised in California and I believe rice raised in California pretty much forever has been acquiring a lead level that would be in compliance with proposition 65. So you have to put a stamp on it that says this substance is known to contain substances that known to the state of California to cause cancer. And so some of the Malcolm Gladwell stuff like Blink and whatnot where more information isn't always better. More granularity isn't better. Malcolm Gladwell talked about the improvements in say like medical imaging. And you would think that this would improve diagnostic criteria and in fact it hasn't really helped that. Like he had the example of 10 different oncologists that were given a battery of cancer patient reports and their imaging ... All 10 of them had a completely different take on this stuff. There was no consistency there at all. And the increased granularity didn't really help things all that much and I think that this is kind of an example in that story where we can find ever smaller amounts of substances in biological fluids and naturally occurring environments.

**Robb:** And it's not to say that we want to turn a blind eye to potentially injurious substances but at the same time the public operates at such an infantile level of understanding with this stuff. I don't know that we're really doing anybody any favors here. Like there was

no ... They mentioned that these substances are in these bottles. There was not a word of commentary about what the actual biological or toxicological effects would be at these levels. They mentioned that these things are problematic but as with almost everything-

**Nicki:** Well and it says here, the federal government's voluntary guidance for PFAS says limits should be below 70 parts per trillion. Some states have set lower limits between 12 and 20.

**Robb:** And all of the things tested were well below that.

**Nicki:** But all of these things were well below 10. Yeah.

**Robb:** I'm as big a fan of beating up on the government as anybody but ... Yeah. And so this is stuff that I think can be damaging. Can we spin out on this a little bit?

**Nicki:** Do you want to spin out? Okay.

**Robb:** Yeah. We'll spin out a little bit on this. So then people will say, you need to get these numbers down to zero. And then it's like oh gosh. Okay, how do you do that? Maybe there's like a filtering process or maybe there's some way of chemically degrading these things. And in this time of talking about climate change and resource allocation, what do you need to do to get a filter system or a chemical degradation process to get these things down to effectively zero? And will it only be zero because our testing ability is currently parts per trillion? What about when we get to parts per quadrillion? And so it's this ever moving goalpost in this thing with really diminishing returns. And again, testing this stuff and quality control, that's totally fine, but we just need to keep people's feet on the ground a little bit about what is the real significance of this. If you drive a car and you're worried about PFAS's in your Topo Chico, in my opinion, that is such a misallocated risk analysis. The thing though is that when people get in the car they think they're in control. And this is one of things that we just fool ourselves about.

**Robb:** It's one of the most dangerous things you could possibly do but yet almost everybody does it and we do it all the time and we think that we're in control and we're really not that in control because we can't control everybody else in every other vehicle. And just saying, "Well and I drive well and everybody else is an idiot." Okay, fine. That idiot may T-bone you and kill you and your family or significantly harm you. So this is just some of the stuff that I think that we all could do a better job of understanding true risk and kind of assigning that appropriately. Even in the rebellion which is a sophisticated bunch of people, I pointed out that this is parts per trillion and what does this really mean biologically and the number of people that were kind of like oh my god, I'm not drinking Topo Chico anymore. They're like okay, that's fine. So I bought two cases of Topo Chico yesterday just kind of as like a fuck you to this goofiness. And some of what I'm going to dig into in the salty talk is like what are the levels of these substances in ground water and most drinking water and whatnot?

**Robb:** At this point almost nothing is 100% pristine and so we do need to think about some mitigating strategies around this but the body's really good at breaking this stuff down. Particularly if you eat adequate protein and you get some sun on your skin and you sweat in a sauna or exercise or something like that. We have good ways of dealing with stuff. And again, that doesn't mean that we don't move towards a cleaner better world but at the same time, we kind of have to have a little perspective on it.

**Nicki:** Okay.

**Robb:** Damn this is a long intro.

**Nicki:** This is a long intro.

**Robb:** Yep.

**Nicki:** All right, let's announce our T-shirt winner for the week. It goes to LZB10 and says, "Thanks for talking masks. I'm glad you tackled the mast question. I believe your view is an incredibly common one but those voices aren't heard because they're either censored or choose to be silent to avoid a bunch of self righteous hate."

**Robb:** Yet another reason to not be on social media.

**Nicki:** Yeah. LZB10, thank you for your review. Please send us an email to [hello@robbwolf.com](mailto:hello@robbwolf.com). Include your T-shirt size and your mailing address and we'll send you a Healthy Rebellion Radio T-shirt.

**Nicki:** Let's see here. Our sponsor. If you're on the hunt for an amazing producer of grass fed and pasture raised meats that have proven by a third party to improve the soil, White Oak Pastures, the sponsor of today's episode of The Healthy Rebellion Radio is your farm. White Oak Pastures is six generation 154 year old farm in Bluffton, Georgia. They pasture raised 10 species of livestock and practice regenerative agriculture that improves the land. Their cattle and sheep are grass fed, their pork and poultry are pasture raised and given non GMO feed. Their meats are raised, slaughtered and butchered right on the farm. In fact, White Oak Pastures operates two on farm USDA inspected abattoirs to process and butcher their meats.

**Nicki:** Robb, you interviewed Will Harris of White Oak Pastures, gosh, I think it was maybe four or five months ago. And one of the things that struck me is he made a comment about how regenerative agriculture allows for the revitalization of rural America. And I think he said that they are maybe the largest employer in their county. And so not only are they doing right by the animals they raise, the land, but also their people.

**Robb:** Yeah, it's interesting. As late as the 1950s the preponderance of Americans ... And this extends to the rest of the world and so this isn't just kind of like US centric. But the preponderance of people worked in kind of food production capacities. That shifted when we intensified our food system and there's maybe some upsides and benefits to that. But one of the things that I'd been pointing out and we mentioned this in Sacred Cow, is that over the course of time AI will displace more and more people from their work. Ironically, things like doctoring and lawyering which are very algorithmically driven, they're these kind of rule sets that you follow, these things are going to go by the wayside first with artificial intelligence making its way into our lives. There are already medically based AI programs that beat the pants off of doctors diagnosing most things. They're far better than virtually any doctor diagnosing much of anything. Where AI is going to be the last area to enter is in creative problem solving processes. And ironically, even though we've loved to paint farmers and ranchers as these backwards buffoons, what these people do particularly in the regenerative setting is problem solve all day long.

**Robb:** This is one of the upsides of the industrial food system is that if you can beat everything back with chemical inputs then you kind of can of normalize the process in a way that it becomes formulaic. It also destroys the topsoil and it crushes the animal species and bird species and insects. And it has a lot of negative knock on effects. And so even though it's not really in vogue anymore to be proud of commerce within the United

States and people being employed in the United States, this also affects people everywhere. One of the projects that Dianna Rogers is working on right now is the impact of the global move towards a vegan and vegetarian diet. What that will mean for the tens of millions of women around the world who are not allowed to own any type of physical property other than livestock. And so there's a remarkable amount of elitism and poor understanding about what the opportunities are around these regenerative systems. And it doesn't just regenerate the soil, it regenerates the process for people to make a living doing work that matters.

**Robb:** Joel Salatin has talked about the fact that they are unashamed at the human intensive nature of the process that they employ. And I think Will Harris is very similar. But these people get paid well to do the job of a professional, which is feeding themselves and their community around them.

**Nicki:** And their community. Yeah. And Will and the operation they have there at White Oak Pastures, it's such an inspiration in the regenerative ag space. People who are getting into this field or even have been in it for a few years, they look to White Oak as kind of the shining example. And White Oak Pastures uses nose to tail production. So not only do they sell all of the amazing cuts of meat that you're looking for, they use the trim, the fat, the bones, the hides to make dog treats, leather products. We actually since living in Texas ... Nowhere have I ever lived have we ever needed coasters. But you do need them in Texas and we have some of the White Oak Pasture leather coasters and they actually work wonderful. Because not all coasters ... This is another thing. I know this is a long tangent here. But not all coasters are creative equal.

**Robb:** We have some really nice ceramic coasters and because it's humid enough in Texas-

**Nicki:** It sticks to the glass. So you go to lift up your glass to drink and then your coaster fall on your plate. It's really annoying.

**Robb:** And when you have kids it's spectacular. Yeah.

**Nicki:** Yeah. So the leather ones that we have from White Oak Pastures, they don't do that and they're actually the ones that we use all the time.

**Robb:** All the time. Yep.

**Nicki:** So check them out. Go to [whiteoakpastures.com/robbwolf](http://whiteoakpastures.com/robbwolf) and enter code, Rebel10 to get 10% off your product total for first time customers and that's up to a \$100 max discount. Again that's [whiteoakpatures.com/robbwolf](http://whiteoakpatures.com/robbwolf), R-O-B-B-W-O-L-F, and that code is Rebel10.

**Nicki:** Okay hubs, ready for question one?

**Robb:** We're like 40 minutes into this so we should probably get after it, yeah.

**Nicki:** Okay, this one is from Gabe. He's trying to avoid statins. "Hey Robb and Nicki. I was wondering if you could offer some guidance regarding some of the best things I can do to improve my cholesterol. I recently had a standard lipid panel done that showed my LDLC was calculated at 154, total cholesterol was 234, HDL was 60 and triglycerides were 93. I'm having more comprehensive blood work done by my functional medicine doctor to get a measure of ApoB and LDLP, but during my appointment he brought up the possibility of statins. I'd like to avoid that if at all possible and was curious if your work with specialty health gave you some insight as to what interventions generally

worked best for folks. Some of the research I've been doing from Peter Attia seems to indicate that cholesterol is largely just a function of how much your cells produce and how many hepatic LDL receptors your genetics blessed you with, which makes me feel pretty powerless. Just for reference, I'm 42 and have eaten more or less along ancestral guidelines for the past eight years with some very occasional minor offenders like oats, beans and corn."

**Nicki:** "I exercise very inconsistently. Kind of a three months on, three months off pattern which consists of mainly five by five power lifting. I'm also coming off a year of being stuck in an office with a lot of recent college grads which meant a good bolus of doughnuts, pizza and other non sanctioned foods which started infiltrating my day to day. But I've changed work situations now and eating is much more on track for the last couple of months. I am 5'11", 170 pounds and perpetually squishy around the midsection. Any thoughts are appreciated, Gabe."

**Robb:** So I have a link here. We've known stuff like this for a while but there was kind of a resurgence of looking at morbidity and mortality as it relates to total cholesterol levels and the LDLC and whatnot. And I have a link here from a nature article and I'll just read part from it. In the spline analysis figure two, the total cholesterol ranges associated with the lowest mortality were approximately 200 to 240 milligrams per deciliter except for men in the 18 to 34 range which is 180 to 220 milligrams per deciliter. For women, similar numbers. And the reality is and the irony is that the point at which all cause mortality is lowest is well within the range of when doctors start freaking out about your cholesterol levels. So that's one thing. I do really think that looking at LDLP and whatnot is a huge boon for getting some insight into this story because we can end up in situations with discordance where we have kind of ho hum cholesterol levels. Maybe a little on the high side. But you can end up with remarkably high counts of lipoproteins and it tends to be the small dense more atherogenic variety. That can happen and that is definitely something that I think is more concerning.

**Robb:** And usually reversing insulin resistance and looking at kind of inflammatory status, gut health is all helpful. We are working with an outfit called Precision Health Reports which is going to be rolling out some very in depth I guess analysis or studies along this line where you get your blood work done and they will give you a iron clad 10 year diabetes and cardiovascular disease risk profile. So I would keep your eyes open for that. We'll be talking more about that. And in full disclosure, I'm on the scientific advisory board for these folks, but this is basically the same technology that we used with the Reno Clinic with the benefit that it actually has a really elegant user interface for online and being able to order this stuff remotely. So Gabe, I wouldn't freak out right yet. I would definitely follow up on the LDLP and just kind of take a gander at that. The interesting thing to me is he's right in the sweet spot for the lowest all cause morbidity and mortality with his current cholesterol profile. So I would take this nature article and take it back it to your doctor. Sounds like they're pretty well informed.

**Robb:** But I'd say hey, what do you think about this? Just based of the data that we have here, there is no suggestion that lowering cholesterol is going to help anything. And what's interesting in this thing again, the low side of cholesterol has a much steeper negative association. You get worse outcomes with lower cholesterol faster than you do at higher cholesterol levels. And this is similar to like sodium intake. Like very, very low sodium intake is more quickly associated with problems then comparatively higher sodium intake. So there's some interesting nuance in this story. And yeah, that's probably where I'll benchmark that. So Gabe, take this to your doc. Give this article a read. Take this to your doc. See what he or she has to say about that. And also, keep your eyes open for the work that we're going to be doing with Precision Health Reports.

**Nicki:** And let's see if we can keep you on a more consistent training pattern.

**Robb:** That wouldn't hurt. That certainly wouldn't hurt. Yeah.

**Nicki:** Now that you're out of your kind of work situation which was with a lot of junk food and now you're kind of back on track with the food. The perpetually squishy around the midsection, I know Robb you always mention that's sort of adiposity around-

**Robb:** Visceral adiposity. Yeah.

**Nicki:** Visceral adiposity is kind of the more dangerous fat to carry so let's see if we can't lean you out a little bit.

**Robb:** Good sleep, all the rest of that stuff. Joining a reset in the rebellion would not be a bad idea.

**Nicki:** That could help too. Yeah. Okay our next question is from Ben. He has a question about autoimmune hepatitis. And says, "You were one of the first people I started listening to when I began my journey towards living a clean life style. I heard your name pop up through Katy Bowman. I have a female friend, 20 years old who just got diagnosed with autoimmune hepatitis. I haven't read much about it in the past and haven't heard much about it on various podcasts. A Google search doesn't make a compelling argument for other ways to manage it besides steroids. Besides the obvious, improve sleep, limit stress, avoid alcohol, exercise, eat an autoimmune style diet, is there anything specific that would help target the disease?"

**Robb:** Yeah. So this is one of these, in my opinion, super low hanging fruits. I have a paper linked here. Association of Autoimmune Hepatitis and Celiac Disease Role of a Gluten Free Diet in Reversing Liver Dysfunction. There is a ton of information on this. And so this is, again, like the low hanging fruit. A neurotically managed gluten free diet, making sure that you're not eating anything that is ... Like on the packaging it says also processed in a facility that includes wheat and all that type of stuff. Things like soy sauce. If you use it make sure that it's gluten free tamari, et cetera, et cetera. Like this is a case for doing 30 days totally neurotic gluten removal. Recheck liver status and see if you get a benefit. But man, there is a ton of information out there in the pub med peer reviewed world that suggests that this is a remarkably good intervention for helping to reverse that hepatitis and it wouldn't be bad to also get a check for celiac disease as well. Although, for that to really work usually you need to have been consuming gluten. I would prefer the person just go off gluten and then fix the problem and then we're done-

**Nicki:** Just go off and stay off.

**Robb:** Yeah. At a minimum you could do some genetic testing and just kind of see what your genetic potential is for celiac disease but again, that's not entirely comprehensive in what it's going to tell us either. But yeah, I would just do a neurotic gluten removal. If things improve-

**Nicki:** No soy sauce, no beer, no-

**Robb:** Yeah. I mean neurotic gluten removal. Yeah.

**Nicki:** Yep.

**Robb:** Yeah. And Ben, if she tinkers with this we'd really like to hear about it. Because this is again like I'm sure you did some pretty good searching but you have to know how to look for this stuff. And I got to be honest, when I see things that might sniff like autoimmune disease, then I get in and just immediately look. I'll put in the disease state and gluten. Low and behold, there tends to be a whole lot of linkage with that stuff. And it doesn't always fix it or it doesn't always fix it 100% but it's rare that we don't see people that benefit dramatically from tweaking this stuff.

**Nicki:** Okay. Let's see. Our next question is from Mathew about chronic low back pain. "Hey Robb and Nicki. I've been listening for a while and also caught you Robb on Joe Rogan when you spoke a little bit about your chronic back pain. I've had mine for about five years thanks to a desk job and poor deadlift and squat technique which have subsequently been corrected. But my question is, if there is any supplementation, kratom, CBD or specific protocols you find working? For context, I crossfit five days a week, yoga once a week, mobility work 15 minutes a day. I use a standing desk almost exclusively. I do daily walks and have been eating clean for almost a decade. I think I have the basics down and seeing if you have any extra tips. I'd love to be able to not have to scale deads and squats someday down the road."

**Robb:** I guess I did an Instagram post on this where I was back squatting.

**Nicki:** This was before we watched The Social Dilemma.

**Robb:** Before we watched The Social Dilemma and I had the app on my phone and it made all that easy. I haven't really been able to squat deadlift significantly in over 10 years. I suffered a pretty catastrophic back injury and my sitting and whatnot has definitely contributed to that problem. But we did a strength reset within the rebellion three months ago.

**Nicki:** We did a mobility reset first.

**Robb:** Like beginning this summer. Yes. So mobility reset first which I didn't get in on that. But then I got into the basis strength reset which includes the kinstretch and functional range conditioning as part of the strength work. Which included-

**Nicki:** One of our main things is that most people don't have the prerequisites to do the squat and the deadlift. You might have really tight ankles or you might not have a hip that functions properly and so you're trying to load your joints when they're not ready to be loaded. And so you can do some really targeted mobility work. And the way that they structure the program is really nice because you're doing these kind of mobility exercises and then-

**Robb:** First you do assessment and then you get a sense of are you good to go for this particular movement? If you are not, then there's a way ... This is where scaling should come in. It's not this crossfit method of scaling which is, oh you can't squat 600 pounds? Okay squat 200 pounds. And so I wouldn't call it scaling. These are modifications that work for your orthopedics. There are a lot of people that are not good to go for pressing overhead. There are a lot of people that are not good to go for pressing horizontally. But oddly enough, a lot of people can press in like an incline bench position. And so that's where you do your pressing. And it's not to say that you just give up and you stay there, then you do both assessment work, then preparatory work, and then work to expand your both passive and active ranges of movement. In doing that, I've been able to get back in and squat and deadlift and I'm only at around 200 pounds for that stuff but I am pain free.

**Nicki:** It's been pretty remarkable because normally you would try to push it even a little bit and then you'd be-

**Robb:** Man, I would get another catastrophic deal and-

**Nicki:** You would be tweaked and then you would be unable to move and do much.

**Robb:** And mixed into that, I'm still careful with my back. Like I do very careful hinging when I pick things up and stuff like that. Particularly early in the morning because you're discs tend to kind of reinflate with fluid during the night and so they're a little bit more prone to being cranky in the morning. But I've been great since then. My back pain. So I wouldn't look towards kratom or CBD or something like that. That's not really addressing the root cause. The root cause is a lack of movement prep and mobility prep and I have seen no one do it better than the folks in the kinstrech world. I would recommend Basis Health and Performance. I've got a link there. They have online programs that generally move you through that stuff. We have some of their strength reset and mobility reset available within The Healthy Rebellion and it's just part of your membership and they are also available for one on one coaching which I would recommend do some sessions with them.

**Nicki:** If you had an injury, yeah.

**Robb:** Just really quickly. Yeah.

**Nicki:** If you've had an injury or you've been struggling with something for a while like fitness and your ability to move is important to you as it should be for all humans, sometimes having a trained eye do a one on one with you is ... It's invaluable.

**Robb:** Yeah. And it might be a couple hundred bucks and then you're able to squat and deadlift the rest of your life and do it pain free.

**Nicki:** Or you have like these handful of movements that you need to do. Mathew is doing 15 minutes of mobility a day but maybe the mobility that he's doing isn't really the mobility he needs for his specific joint limitations.

**Robb:** I guarantee you it's not. Because I was doing mobility all the time too and it wasn't the shit that I needed to do.

**Nicki:** Right. Right.

**Robb:** It just wasn't. And I'm good at this stuff but I don't know it all. And I finally got around ... When they rolled out the strength reset I had been in my kind of repetitious pattern and Nicki was like, "You really need to do this thing," and I'm, "I don't have time." And she really leaned on me. This is a backstory on this. I was kind of a dick. "I don't have time to do this. I'm so busy. Blah, blah, blah." And then I got in and actually did it and my life has transformed.

**Nicki:** Like gosh, my hips feel great. Oh gosh-

**Robb:** My hips feel good. And the fact I can actually ... Doing unilateral work is great. Like box step ups and everything. You can get stronger with that. There's nothing like squatting and dead lifting though. Like it just so strengthens your whole body. So if you can do it, you should do it in addition to all the other stuff. I just can't recommend this stuff enough. Hands down, it is just the most game changing stuff. It's on par with discovering

ancestral health as a concept. It's on par with incorporating meditation into my life. It's one of those things that if I'm on my deathbed and somebody's like, what are the most important things in your health journey as a question, this'll be one of those things. Like I can't imagine not doing this stuff as I go forward with my strength and conditioning work.

**Nicki:** Mathew doesn't say how old he is but I'm going to be 43 in a couple of weeks and you'll be 49 in January.

**Robb:** 49 pretty soon.

**Nicki:** And so as you age the main thing that people complain about as they get older is that their body hurts or their joints ache or they don't have the range of motion that they used to have. This is one of ... I know yoga is great and a lot of people really enjoy yoga but kinstretch is a whole other thing. So it's not even on the same planet as far as what it can do for your body.

**Robb:** And this may be a smidge of a buzzkill, but he's mentioning that he does crossfit like five days a week. You may have to have a conversation with your crossfit coaches about the fact that you may need to do something separate from their programming. And something I would recommend to these crossfit coaches is that they go get kinstretch certified.

**Nicki:** Go get functional range conditioning certified. You get your FRC first and then you can do the kinstretch cert. They are doing them online. You can go to functional range seminars I think is the URL. [Funtionalrangeseminars.com](http://Funtionalrangeseminars.com). Anyway, a Google search will get you there. I did do the FRC certification gosh, back in 2017 or '18. Maybe it was '18. And it's great. It's great. If this is your jam, if this is stuff you're into if you're a coach ... I think if we owned a gym we would absolutely offer kinstretch. We would absolutely have our coaches be schooled up in the FRC and in the kinstretch. It's life changing for clients. We'd have clients with shoulder issues and hip issues and we'd take them through some basic stretching and whatnot but it never resolved things. Whereas like what Sarah and Grayson and Nate at Basis Health and Performance are able to do with their clients that they see in the gym-

**Robb:** Its shocking.

**Nicki:** It is amazing. And they've worked with several of our Healthy Rebellion members in a virtual setting. And we had one gal that was supposed to have a shoulder surgery and no longer needs to have the surgery because they've been able to-

**Robb:** And this was all done virtually.

**Nicki:** All done virtually. Yep.

**Robb:** Just like assessing well, can you do this? Can you do that?

**Nicki:** Just like a FaceTime kind of Zoom thing.

**Robb:** Yeah.

**Nicki:** So anyway.

**Robb:** We have no financial tie to any of this at all. It's just the best shit out there. And I'll say this too to folks that are in crossfit, coaching crossfit and whatnot. One of the biggest holes that y'all have in that community is the programming is by and large dog shit. And I'm sorry, I just can't sugarcoat that. Scaling is not enough. Just doing an armpit fart for a warmup and jumping in and getting after it, it's not fucking enough. And if you want to run a business, if you want to be successful, you can have your competition folks, you can have a good frisky ... It doesn't mean that this stuff becomes pussified in some ways. But if you want to have a business that actually can support you, then the people who come in the door can't leave then because they get crushed and they get injured. And if you're not doing ... I was going to say something like kinstretch, but I would say if you're not doing this FRC and kinstretch stuff because I can't think of anything else that works better than this at this point, if you're not using that as a screening modality, as something that is informing your programming and informing the progressions that you're doing, you are not doing right by your folks.

**Robb:** And so if you're listening to this, you've been informed and now it's up to you to go do something and if you don't, you're an asshole so there you go. And you are failing your people. Thus spoke Robbiethustra. So what few crossfit folks were following us are now going to completely peel out.

**Nicki:** Okay. Let's move on to The Healthy Rebellion Radio Trivia which I don't know if I came up with a trivia.

**Robb:** I did.

**Nicki:** Oh, you did. You did. Okay.

**Robb:** I'm telling you, when you just send this shit to me it gets done. Like I don't fart around with it.

**Nicki:** The trivia ones always stump me. Actually if you guys have trivia questions that you want me to ask Robb or questions for us that we could use in the trivia, things that you're curious about, send those in.

**Robb:** It is honestly one of the most challenging features of putting these damn things together.

**Nicki:** We get the episode prepped and then I'm like, what the hell should I ask for the trivia question? So yeah, some listener supplied ones would be nice.

**Robb:** Much appreciated. We'll give you a shout out if you want a shout out on it.

**Nicki:** Yeah. Okay so episode sponsor White Oak Pastures is giving away their beef sample kit. This is the best trivia prize. To one incredibly lucky winner. This includes two boneless ribeyes, two filets, three ground beef, three snack sticks, spicy herb and original. Again, to one winner selected at random who answers the following question correctly. Robb, what's your favorite kind of soup?

**Robb:** Easy. New England style clam chowder.

**Nicki:** Yeah. But when was the last time you hand a New England style clam chowder?

**Robb:** Its been a while but I made one when we were back in Chico. Its been a long time. Where I used some bacon and coconut milk and a little bit of whole cream. So I kind of

ketofied it a little bit. Didn't have potatoes in it. I think I used a little bit of cauliflower but as you recall it was ...

**Nicki:** What? Good?

**Robb:** Oh you don't even remember.

**Nicki:** I don't remember.

**Robb:** Clearly it was dog shit. You didn't even remember. I thought it was amazing. I seem to recall you being oh my god, this stuff's great.

**Nicki:** I literally can't remember the last time I had any clam chowder.

**Robb:** Yeah, I made you clam chowder but clearly this is-

**Nicki:** Okay, this was a long time ago.

**Robb:** Yeah, we're done. We're done. This relationship's over.

**Nicki:** All right folks. To play go to [robbwolf.com/trivia](http://robbwolf.com/trivia) and enter your answer and we will randomly select one person with the correct answer to win White Oak Pasture's beef sample kit. Cut off to answer this week's trivia and be eligible to win is Thursday, October 15th at midnight. We'll announce the winner via email and also I will notify the winner via email and also announce the winner on Instagram as well. And this is open to residents of the US only.

**Nicki:** Okay, we've got a question from Martin. He says he's still holding body fat even on a keto diet. Martin says, "Okay, so about a decade ago I lost over 80 pounds going on a paleo diet. I was very happy and feeling in the best health I ever have since I was a teenager. I'm now 54 and eat a mostly keto diet with very, very occasional cheats. And when I do that, it's on a paleo kind of platform. However, I'm just not satisfied with my body composition and maybe it's dysmorphia or something like that, but I don't have that cut or ripped look. I can do a lot of pull ups, I do a lot of power lifting type lifting. Very strong but I look like I still have subcutaneous body fat which is near impossible to shed, especially around my chest where I try to get a defined look but still have these rolls, what appears to be at the very corners of my pecks, near my armpits." I'm not sure what he means by these rolls. Rolls. Maybe he means rolls.

**Robb:** Could be rolls. Yep.

**Nicki:** But it's just spelled wrong. Okay. "Am I just being silly or is there something I can do to get a more ripped lean look? Thank you for your consideration, Martin."

**Robb:** So first on this, I don't think a desire to improve your aesthetics is ever generally not a silly thing. Like if it's something that motivates you and it's something you want to tinker with, I think that that's always good to go. So I wouldn't downplay it. If you've been doing more of a seat of the pants keto then it might simply be time to sit down and do like the keto gains macro calculator and really figure out where you are, how much protein are you really eating?

**Nicki:** Are you doing a fat centered keto diet or are you doing a protein centric keto diet? Because there's a big difference.

**Robb:** And man, we have folks ... One of the always interesting kind of perplexing things about the resets in the rebellion, you have folks that have been chipping away at this stuff for ages. And they've made progress and they usually kind of stall or something like that. And they're like damn, I wasn't eating nearly the amount of protein that I'm supposed to be eating. So I would definitely look at just your macros. The keto gains macros calculator is a great place to start. Even if you decide to adjust the protein up and maybe the fat down a little bit or something, it's a great benchmark to use get started there. And then at 54 I think doing a hormone profile. Just see where you are in this story. And I think Dr. Gabrielle Lyon had a post on the protocol that she would recommend for testing total and free testosterone, estrogen, estradiol, sex hormone binding protein, T3, T4, reverse T3.

**Robb:** But just look for Dr. Gabrielle Lyon and hormone testing for men I think is what that is. You might be a little on the low side. But being a little on the low side doesn't mean you necessarily need to go on a gram of testosterone per day. There's all kinds of interesting things you can do there. I don't want to say naturally, but there are pharmaceuticals that can help turn on your endogenous testosterone production. And these are pretty benign and they help your body to work in a more natural function. Some people will reach a stage where exogenous testosterone makes a lot of sense and there's all kinds of ways to screw that up and most endocrinologists do. So there's a lot of nuance to that whole story. I covered what I do in The Healthy Rebellion last year in my health update. Like my yearly training update. I delineated what I'm up to on that. So those would be the two places I would look. Definitely do a dive on hormones just to see where you're at. You'll get the most bang for your buck if you're at the higher end of normal within that story. And just really quickly for folks, a 54 year old male, you can see testosterone levels as high as 800 or 900 or as low as 200 or 300. And that's considered normal.

**Robb:** But I will goddamn guarantee you, the people running around at the more 700, 800, 900 feel a hell of a lot different, look a hell of a lot different than the people running around at the 200 and 300s. And this is one of the absolute ridiculous failures of conventional medicine. And in particular with endocrinologist there's all this hand wringing around this stuff. When people don't feel good, they don't look as good, people will cite studies about prostate cancer and all that stuff. And when you really dig into it it's like, this is terrible. The science is just terrible. So checkout your macros. Get some blood work done around Dr. Lyon's guidelines and then I would do some tinkering from there. And Martin, probably at the end of the day we're going to have to do a little calorie restriction on you. Keep protein high, ratchet the calories down a little bit and that will get you leaner and you maybe do some sort of a stair step process where you're low calories for two or three weeks and then you go maintenance level for a week or two and just do kind of a stair step process with that.

**Nicki:** And let us know.

**Robb:** And let us know.

**Nicki:** Yeah. We'd like to hear back. Okay our final question this week is from Carolyn. Shaky legs and lactate. "Hello Robb and Nicki. I can't believe this my first question for you as I've been following your work since 2009. I usually do my own research but this time I really need help. I've been starting to get shaky legs when I do for example a shoulder press or bicep curls. I've never been especially prone for lactic acid or lactate buildup before. Even as I was exercising much more intensely and this worries me. I read that lactate is produced from pyruvate via the enzyme lactate dehydrogenase in a process of fermentation both during normal metabolism and exercise. But why do I get so much of it after only a two minute session? I recently also learned that LDH is a good indicator of

cancer in its early stage. Does this mean that people with beginning cancer also get more lactic acid? Hope you can help to clear the correlation between the two and what other factors could possibly be contributing to my legs shaking when doing an upper body workout. Short facts, I'm a female, age 36., 170 centimeters, 55 kilos." I can't convert those centimeters to inches in my head. 55 kilos is like 120 pounds.

**Robb:** Ugly American.

**Nicki:** Yeah, I'm terrible. Okay.

**Robb:** Double it and add 10%.

**Nicki:** She's got Hashimoto's but it's under control. Keto, carnivore-ish. She had Lyme disease one year ago and was on doxycycline for 21 days. "Thank you so much, hugs from Sweden."

**Robb:** So one part of this, this is where the doctor Google process can get you in trouble sometime. Like finding linkage between lactate dehydrogenase and possible cancer propagation. To answer that question, I would say no. I would also say that I doubt that this is a lactate issue in her legs. It would be interesting to see her train and kind of see specifically what's going on here. What was really striking me ... And again, this is what's difficult doing this stuff literally blind. We have a one sided, probably fewer than 500 words report of what's going on, no ability to ask questions and whatnot. But the first thing that kind of popped into my head was something more on the neurological side or even like electrolyte based kind of issue and also stimulants like caffeine. I noticed for myself I've had to ratchet that stuff down. You've seen me a couple of times where I'm grabbing a bottle or something and I got some shaky hands from doing too much coffee. And so I've had to really ratchet those things down. So I would suggest that this has likely nothing to do with lactate.

**Nicki:** I'm curious if it ever happens any other time. Like is it only when she's doing some sort of upper body training or does it ever occur at any other time in the day?

**Robb:** That's another good question. Yeah.

**Robb:** Like just standing or walking around or anything like that. Do you ever experience this with your upper body? Like some shakiness there. So the short answer is I really, really don't think that this has to do with lactate at all. Beyond that, I'm not really too sure what is going on here. But it makes me think kind of neurological or stimulants or something like that. But this is where being able to ask some questions, see the person move would go a long ways towards addressing this. And so this is maybe where you grab a good functional medicine doc or you find a good strength coach that gets these bigger picture things. Have him or her put you through some stuff and kind of like is there a balance issue from one side to the other that maybe is suggesting a neurological component to this or something like that? So long and short, don't think it has to do with lactate. But I would dig into it. Balance ... She's not describing balance issues but the shaky legs, that can mean a lot of stuff.

**Nicki:** And she's young. She's 36 so.

**Robb:** Yeah but like early onset of say like multiple sclerosis and stuff like that. You can have some of these neurological things. Carolyn was already going down the cancer deal so I don't want to freak you out with that. This is where getting in and doing some digging would be good. Find a doctor. A good sports medicine doc that has some steeping in

some functional medicine would be really valuable here to ask some questions, do some testing and kind of figure out a little bit of what's going on. It could be as easy as like some additional electrolytes or something like that. You can definitely get shaky from inadequate sodium levels and electrolytes in general. I think it would be worthwhile to get in and dig around on this stuff a little bit. And if you do, please report back to us. It would be really interesting to know what the follow up is on this.

**Nicki:** Definitely.

**Nicki:** Anything else hubs? That was our last question.

**Robb:** We had such a long intro I want to be concise on my outro. So yeah.

**Nicki:** Okay. Well everyone thank you so much for joining us again this week. Please check out our show sponsor White Oak Pastures for all your pastor raised meats. Check them out at [whiteoakpastures.com/robbwolf](http://whiteoakpastures.com/robbwolf) and enter code Rebel10 to get 10% off your product total for first time customers up to \$100 max discount. Again, that's [whiteoakpastures.com/robbwolf](http://whiteoakpastures.com/robbwolf) and the code is Rebel10.

**Nicki:** And thank you all. Share the episode if you enjoyed it and we'll see you next week.

**Robb:** Give us a review and hopefully we y'all in the rebellion.

**Nicki:** That sounds good. We'll see y'all next week.

**Robb:** Take care. Bye.

**Nicki:** Bye.