

Nicki: It's time to make your health an act of rebellion. We're tackling personalized nutrition, metabolic flexibility, resilient aging, and answering your diet and lifestyle questions. This is the only show with the bold aim to help one million people liberate themselves from the sick-care system. You're listening to The Healthy Rebellion Radio. The contents of this show are for entertainment and educational purposes only. Nothing in this podcast should be considered medical advice. Please consult your licensed and credentialed functional medicine practitioner before embarking on any health, dietary or fitness change. Warning, when Robb gets passionate, he's been known to use the occasional expletive. If foul language is not your thing, if it gets your britches in a bunch, well, there's always Disney+.

Robb: Welcome back, friends, neighbors.

Nicki: You already clicked record.

Robb: Loved ones.

Nicki: I love how you start these shows. He pulls up this Facebook image of Sagan seven years ago, so she's a year old and she's standing on the lawn on our home in Reno, and looking cute as ever, and starts telling me how now she's walking through the kitchen, and our kids are tall for their age relative to their peers. Anyway, and then he just clicks record and he's like okay, welcome back. I didn't even know we started this show. Thanks for that, hubs. Thanks for giving the warmup or the notification so I could be ready.

Robb: Not much foreplay today, sorry. You always have to be ready.

Nicki: Hi, everybody. This is episode 111 of The Healthy Rebellion Radio. Let's see, we have a little sun in the Montana sky. This has been sort of an abnormally wet spring, so we hear. This is only our second spring here, but we were at an event, the owners of SPG here renewed their wedding vows on Saturday night, so we got to catch up with a bunch of people. One guy we were talking to was like no, no, no. This is not normal, because we were like shit, maybe last year was the anomaly and this is how it's always going to be, because it's been rainy and gray, and rainy and gray.

Robb: And cold comparatively.

Nicki: Yep, we just yesterday did a bunch of weeding, because it's been so wet.

Robb: Funny enough, despite the wet and cold, the weeds still grow remarkably well.

Nicki: Yes, yes. Anyway, we haven't yet put our seedlings in the ground, but that is a project for some of today and tomorrow I think. I think we are past the freezes and we can actually plant some stuff now. What else? What else? Our little man, Griz, Grizzly Bear, is 11 weeks old now, and he's a little terror. We never had Dutch during this stage, and so the always into everything, kind of maniac phase of puppyhood is new for us.

Robb: Not too bad.

Nicki: He's not too bad, no, and he's sleeping through the night.

Robb: But you and Zoe are actually doing a fantastic job training him.

Nicki: Yep. He sleeps nine to 9 1/2 hours a night, so that's the main thing that I'm like thank the Heavens, because you want to see a grumpy mom in the house, short sleep me for multiple weeks on end.

Robb: We won't say any names, but we discovered we have some friends that they also have a new puppy, and within their relationship there's some strife in which one of the individuals thinks that crating the dog is-

Nicki: Yeah, it's a hill that the one individual doesn't want to die on, because they broached that and I don't know what happened. I don't know if they attempted crating, or firmly is not open to the conversation at all. I don't know how you would survive if you didn't. It's the only way that you can have peace when you have this little dog.

Robb: You would have no peace and you would have a house that is encrusted in urine and feces.

Nicki: Yeah, yeah, and I don't know how you sleep through the night. Anyway, anybody out there with a new puppy, we highly recommend utilizing the God-given tool that is the crate.

Robb: And on the 8th day God created dog crates.

Nicki: Something like that. Yeah, yeah.

Robb: Okay.

Nicki: All right, enough of that stuff. Let's see, upcoming within the Healthy Rebellion community, we have our book club that just kicked off yesterday. We're recording this on Tuesday, May 31st. we're reading The Book of Joy by the Dalai Lama and Desmond Tutu, so that is ongoing here. If you're not a member, jump in, join.

Nicki: You can always catch up, read faster than the prescribed chapters if you want, so that's something that you can always jump in and join. We also have a 7-day breath work challenge starting next Monday on June 6th, with a kickoff call Sunday, June 5th. That will be fun, and then two other things coming up, a survival class on food preservation, June 22nd, and then the month of July is our rucking challenge. I know a lot of people in the rebellion are really excited for that. More details on that coming soon. I'm excited for that one too.

Robb: Are you going to ruck?

Nicki: I'm going to ruck.

Robb: Okay.

Nicki: Yep. Are you going to ruck?

Robb: I always ruck.

Nicki: Okay, let's see. What do you have for us for a news topic, hubs?

Robb: Something that's not going to be surprising to anybody here, but it's one of those ha-ha things that you can pull.

Nicki: Team America.

Robb: If you want to go Team America on people, the title is Vegan Diets Negatively Impact Surgical Wound Healing, and it's kind of interesting. It's a study that was published in Dermatological Surgery in December, 2020, enrolled 21 omnivores, 21 vegan patients who underwent surgical excision of non-melanoma skin cancer. Then they were assessed as to the wound healing and complications, and the vegans had significantly worse wound resolution, far more significant complications, worse scarring. This kind of jibes with what we saw, what was the vegan film? Game Changers, where there's all these athletes that supposedly, they went vegan and then all of their careers ended. Almost to a person they end up ending with soft tissue injuries.

Robb: They get some sort of a catastrophic basically wound failure, and when you think about what we're seeing on the outside in this case, with wound healing and what was probably going on internally, it seems pretty consistent. Folks were assessed for iron status, B12 levels, and it wasn't good for the vegan folks. It doesn't necessarily mean everybody needs to go carnivore, but I will say this, and I've said this for ages, I think you can get away with eating plants of various types, so long as you eat enough meats of various types to keep you from getting nutrient deficient from the plants. There you have it, and we'll add a link to that in the show notes so that you can bludgeon your co-workers or whoever you want to with that.

Nicki: Okay, let's see. The Healthy Rebellion Radio is sponsored by our salty A-F electrolyte company, LMNT, and as many of you probably now know, Grapefruit Salt is officially back and available just for a limited time. Once it's gone, it's gone, so if you have Grapefruit Salt lovers in your life, you might consider buying an extra box for an upcoming birthday gift, Father's Day gift or other holiday, or just because, or if you yourself love it, you want to stock up.

Robb: We will be stockpiling.

Nicki: We will be stockpiling as well, yes. You can grab your Grapefruit Salt as well as any other Element flavors at drinklmnt.com/robb, that's drink, L-M-N-T.com/R-O-B-B. Okay, we've got three questions for you all today. The first one is from B.J. He was curious about sweating more. Is it better to sweat more in a sauna or not? Robb and Nicki, longtime listener and sharer of all things Robb Wolf. Your books and podcasts are the easiest to read and listen to, and I appreciate that being a guy whose biggest hobby is learning and understanding health, but who barely survived Biology 101.

Nicki: Also thank you for being open to new ideas and evolving over your career. It's reassuring to know that you and Nicki are willing to change your stance on an issue regarding a particular food, diet, politics, whatever. When I read Wired to Eat, and was introduced to the term hyperpalatable, a lot of pieces of the puzzle fell into place for me. I'm a 47-year old male, five foot eight, 165 pounds. I've eaten all the diets over the years that include meat, never considered vegetarian or vegan. I've been as heavy as 210, but have pretty good health markers today. Admittedly, I still pray that one day you'll promote an all pizza and French fry way of eating.

Robb: It's coming.

Nicki: Okay, so I've always liked getting in the sauna, not the steam room at the gym. I believe it provides similar benefits to cold therapy, but cold therapy is so cold. I have envied others who would walk in, start sweating immediately, like within a few minutes. It has always taken me about 10 to 15 minutes to bead up and start sweating. I figured it had a

little to do with how often they get in versus me doing it a couple of times per week at most. I recently had a sauna built in my home. I've been getting in it regularly for just a month and I've noticed a significant increase in how quickly I begin to sweat. Yes, I think I've got my room a bit hotter than at the gym, but not much. I'm really enjoying it and it feels great, but it's got me thinking.

Nicki: Is sweating easier really a positive effect or am I just convincing myself of this like how people try to believe that eating six meals a day is how we're supposed to eat to rev up our metabolism. That idea, so many daily meals, has never made sense to me. Why not leave my car running overnight or while I'm at work so it's good and warmed up when I'm ready to drive again? Just doesn't make sense. It's not causing me to sweat all day in normal circumstances. I don't feel warmer or uncomfortable through the day. In the mornings I don't want to take a super hot shower like I always have, but that doesn't seem like a big deal, so to sweat more or not to sweat more? What do you think? Hoping I didn't leave too much for you to unpack before being able to share your thoughts. Best wishes to you and your family, B.J.

Robb: One, I'm continually intrigued by the topics that people do decide to send in to us. It's just kind of fascinating, you know? I appreciate B.J. sending this in. It would have never really occurred to me to ask a question along this line. A couple of different ways to look at this. One is that what are the benefits of being in a sauna, specifically a dry sauna? There's the heat shock protein element, which seems to be ramped up with heat exposure, similar to the cold shock protein enhancement with cold exposure. Then above and beyond that I would say you've got the mental benefits and psychological boost and all that type of stuff, but the really, I think primary benefit of sauna is cardiovascular benefits.

Robb: That relates to getting your heart rate up to 120, 130 beats per minute and you want to stay in there for 20 minutes ideally at least to be able to get that full cardiorespiratory benefit out of that. Depending on how hot one gets and how quickly you kind of hit heat fatigue, you're going to tap out on that. Because it is a dry sauna, you will start to cool off a little bit with sweating, and that will actually keep you in the fight longer, and your heart rate will tend to go up as you sweat because your fluid volume is decreasing and you kind of get this hypovolemic kind of deal. I don't know if I'm really answering this question. It is well understood that as people habituate to either heat exposure or exercise, they will tend to sweat quicker, and I think that that's going to be of benefit for folks because it helps them to thermoregulate better.

Nicki: So there's nothing wrong with him sweating more.

Robb: There's nothing wrong with it. Yeah.

Nicki: It's just kind of a normal adaptation to consistent heat exposure.

Robb: Normal adaptation to heat exposure. Yeah. Yeah, and I don't know if I really answered that question appropriately, but there you go.

Nicki: I will say that the sauna in the women's locker room at the gym that we go to is consistently 220 degrees. It's hot and I love it that way, but occasionally somebody will come in and turn it down to the 185 or whatever it's supposed to be at for the OSHA prescription.

Robb: General pop?

Nicki: I like it hotter. I feel like I sweat faster with the higher temperature, and that's why I like it hotter. I don't know. That's just my personal experience.

Robb: When it's 200 or above you definitely notice it. It's not a subtle effect. Yeah.

Nicki: Yeah. I love it. Okay, our next question is from Becky, celiac or not? Is it worth testing to know for sure? I've been 100% gluten free for the last year, ever since my DNA consult with Dr. Anthony Jay, where I believe his exact words were quote, "Avoid gluten like the plague," unquote. Prior to that, I was occasionally having gluten when out, never at home, but have been eating a paleo style diet for the last five plus years.

Nicki: I've done a little research on the test for celiac, which requires you to eat gluten in order to measure the antibodies in the blood. It sounds terrible to make myself sick eating gluten, even as much as I miss some good French bread, in order to confirm or deny whether or not I have celiac disease. However, I'm wondering if it is worth it to be tested to confirm that I have it. Besides avoiding gluten, is there anything else I should be aware of or alter in my lifestyle if it's confirmed that I have celiac disease?

Robb: Let's tackle that last part first. Is there anything else you need to be aware of? The Cyrex Labs folks for over a decade have been talking about the cross-reactivity that can exist between things like coffee and chocolate, I think are the biggies, dairy. But some people with celiac disease have significant cross-reactivity with basically other proteins that can produce similar or even the same kind of celiac type response and keep kind of active autoimmune disease present. There is that.

Robb: Becky, I don't know if it's worth it for you to test or not. I never officially had a positive celiac test, because my mother was diagnosed with it. When I removed gluten, I felt far, far better. When I would get an accidental exposure, I felt far far worse. That was pretty good for me. I guess if it finally fosters some 100% compliance, then maybe that would be worth it. I didn't need that. There is something interesting to consider in this age. There was just the Pfizer CEO that was talking about biotracking pharmaceuticals, like basically in each one of your pills there would be a little chip that will basically wirelessly communicate with your health tracker to let your insurance company know that you did in fact take the pharmaceutical.

Nicki: Oh, shit. I haven't heard of this.

Robb: Maybe that's what I should have put in the news piece. I don't want to steer this too far off track, but this is reminiscent of when Amazon and Berkshire Hathaway, they actually reached out to Chris Kresser and a bunch of other people because they were looking at how to revamp their whole approach to healthcare. Chris talked to me about the risk assessment program. We were both really excited and then as this thing motored forward, what the whole thing settled on, the innovation that the smartest, wealthiest people in the world had, was that they were going to make really, really sure that people were compliant with taking their medications. That's what they had to offer. No fucking lifestyle change or big intervention or anything.

Nicki: Well, because if you make sure they take their pills then they have to get another prescription to refill.

Robb: Yeah, but the thing is when you really look critically at the data around that. Blood pressure meds, maybe they help people but not that much. It doesn't really reduce morbidity, mortality, management of diabetes. It kind of helps versus just letting it just rip, but Metformin, as an example, most of the studies that I've looked at, it doesn't

really improve morbidity, mortality. It kind of seems to kick the can down the road because you get some better blood sugar regulation, but the thing is in the case of Metformin you're still overeating. You're either overeating calories or carbs or both, and you're still Type 2 diabetic because of over-consumption of food basically.

Robb: Metformin, although it improves insulin sensitivity or kind of an indirect insulin sensitivity and allows you to better control blood glucose levels, it's still not really fixing the root cause problem. When you look at who's going to benefit from ensuring that we are compliant around pharmaceuticals, well, the people selling drugs. Really, it's tough to really get behind the benefits above and beyond that. It sounds absolutely insane, but the data is pretty clear, and there are certain circumstances, like if you're hyperthyroid and you go on thyroid meds, then life can be dramatically improved.

Robb: There's certainly situations where that's appropriate, but the bulk of the stuff is metabolic disease driven, and the powers that be kind of want to be able to monitor that. Do you want, Becky, on your medical records, that are going to become more and more transparent apparently with time, because HIPAA no longer exists in the United States because you can ask somebody their COVID status just out and about. It's like you order a burger and your COVID status apparently can be checked. The whole notion of HIPAA-

Nicki: The secretary at the dentist, or the receptionist at the dentist can just ask you when you're at the counter and the whole waiting room can hear.

Robb: Yeah, yeah, so our medical privacy is kind of in a shambles, and do you really want to have a celiac diagnosis as part of that, because what is that going to do to influence your insurance rates later because there's very high linkage with neurodegenerative disease and gastrointestinal problems, increased rates of gastrointestinal cancers, increased rates of other types of cancers among those with celiac.

Nicki: Becky, you're already eyes wide open to eating paleo, and for the last year you're 100% gluten free, so if that's working for you and you feel good, I feel like just run with that. I feel like the celiac testing is helpful for somebody who's coming from a sad diet and maybe isn't even aware that food can affect-

Robb: They don't even know what celiac is.

Nicki: They don't even know that celiac is, and so then they get that test result and they're like oh, okay, this is proof that I need to do this thing, but you're already doing it. You feel better. It seems like just run with that.

Robb: That's kind of what I was sneaking up to, but again, I guess if this is going to be the final thing. I'm still getting the sense though that Becky is probably not actually-

Nicki: No, she's been 100% for the last year, but prior to that she was-

Robb: But when I hear the "even as much as I miss good..." I don't know, maybe.

Nicki: You're getting Spidey senses?

Robb: I'm getting Spidey senses.

Nicki: Okay, okay.

Robb: Here's the deal, and there's gradations on this, but as you know because of dining out with me, I don't ever order something with gluten, but if I don't go through a little bit of rigamarole to make sure a burger isn't cooked on a grill where they grill buns, then I get cross-reactivity all the time.

Nicki: Right, right.

Robb: Not everybody is the same degree of sensitive in that regard, but if you suspect celiac, then you really need to take it seriously. Yeah, yeah.

Nicki: Yeah, like finding out what's in sauces, no soy sauce. Like Rob said, when we go to get a hamburger, he will ask them to cook his hamburger patty in a skillet.

Robb: Well, I'll ask them if they do any other gluten containing items on the main grill.

Nicki: On the grill, and if they do, then he'll ask them to cook his hamburger patty in a skillet so that it's not on the grill with the buns.

Robb: Right, and some places do, some places don't. The ones that do, I can go back and patronize them again. The ones that don't, if we go back as a family I just watch everybody else eat.

Nicki: Okay, our third question this week is from John on sugar effects occurring generations later. Robb, I thought of something yesterday, and if I'm reading the theory correctly, the obesity effects of sugar could take a couple of generations to manifest, i.e. each subsequent generation is affected worse as seen in increasing obesity rates. If that's so, why did the nutritional transition about 10,000 years ago manifest instantly in height, bones, teeth, disease, et cetera, and then the human race slowly adapted, hemochromatosis, lactose tolerance, amylase increase, et cetera? It seems that the sugar generational effects theory is going in reverse of the human adaptation seen in the great nutritional transition.

Robb: I've read this one a couple of times, and John, it's an interesting question but I'm not sure that I see exactly where this is. I mean, we could make the case that we are less than 100 years into the potential adaptation to say the ultra process. I mean, we're certainly on the ultra process side. We're far less than 100 years. We're maybe 30 to 40 years, so two generations, three generations if you're from trailer park environs like I am. We're still super early in that whole story, and this is just kind of a side note, but kids are getting sick enough early enough that they may not be able to reproduce, or maybe not all of them. It's bad enough that there may be a significant selection pressure here that could leave us in some spot.

Robb: Shawn Baker just posted something that in the UK they're wanting to start feeding their government sponsored school lunches. They're going to really double down on getting more crickets and mealworms and stuff like that in to enhance the diet and to reduce their carbon footprint because animals are bad. What was my thought around that? Just that in theory somebody somewhere is going to be able to adapt to these uber shitty diets, like if we just feed them, and adapt is kind of a relative term there. I guess in purely Darwinian evolutionary terms, the kids just need to be healthy enough to make it to reproductive age or the individuals need to be healthy enough to make it to reproductive age, actually reproduce, and have that whole thing keep going forward.

Robb: Like I said, there are folks out there, like reproductive problems are getting greater and greater. Both male and female infertility is getting greater and greater, kids either

entering early or not being able to enter puberty at all. For boys, they're experiencing puberty blockers basically because of their obesity being high enough that the testosterone as it starts ramping up gets converted into estrogen from the elevated levels of aromatase in their adipose tissue. They're basically puberty blocked, you know, because estrogen goes up and the brain senses the estrogen and then down regulates testosterone production. These secondary sexual characteristics that come about from puberty are not really happening in boys. Then in girls, they're getting super early puberty, so I don't know. I'm not totally sure.

Nicki: I think he's saying when transitioning 10,000 years ago, like height increased, bones, teeth, all that improved.

Robb: Height decreased. Things only started to improve when food quality improved.

Nicki: Right, right, right, right, right, okay.

Robb: Otherwise people were sick, short, and died early. This is one of the things that folks dismiss about the paleo diet. They'll say well, people died in their 30s. The average lifespan was about 30 years old when you factored in infant mortality rates.

Nicki: Maybe the change in nutrition manifested instantly in these improvements in health because it was such a stark, the increased protein-

Robb: It was a massive selection pressure. Yeah.

Nicki: I'm struggling here with my words, but we're so robust that it's taking multiple generations for this sugar thing to really take us down at the kneecaps.

Robb: You could look at that I guess that way.

Nicki: The positive input of better nutrition manifests immediately and we see that in people who move from a vegan diet or who have been under-eating protein and then they increase their protein. They clean up their food and they feel better. A lot of things improve all at once, but humans generally are resilient enough that it takes awhile for this kind of sugar obesity thing to just really cull us.

Robb: Potentially. It really isn't so much a time factor. It's how bad is the diet, in my mind, is what the thing is. Our diets have gotten progressively worse over time, and so I think that we're going to see a heightened effect here. The development of sickle cell anemia is one of the fastest, most rapid genetic alterations in a population that we've ever seen, and it was in response to the swiddin cultures doing slash and burn and creating massive new environments for mosquitoes to exist in. It would clear areas. There was the ability for more standing water to exist and then people lived in thatched huts, which provided this amazing reservoir, habitat for mosquitoes to live in.

Nicki: Habitat for them.

Robb: The malarial load was so gnarly that this sickle cell anemia adaptation, when people have two genes for sickle cell anemia, they tend to die rather young, but they are protected from the malaria plasmodium. If you are heterozygous, you only have one gene, then you are protected against the malaria, but you tend not to die excessively young from the sickle cell anemia. Sickle cell anemia adaptation is a one quarter fatality rate. It's a 25% fatality rate.

Robb: That's jaw dropping within those populations, and it's worth noting that people have moved into Europe or North America who have historically had sickle cell anemia as part of their genetics. Sickle cell anemia, when it is in environments which does not have that sickle cell or the malaria load, that trait dies out rather quickly because it is so gnarly. 25% fatality rate, and then there's morbidity and mortality associated with just the heterozygous. It really, in my mind, relates back more to the intensity of the thing that we're facing. I would just argue that when you and I were kids, we had access to far more processed food than what our parents did.

Nicki: For sure.

Robb: Our parents, it was almost unheard of. Now today it's almost unheard of that people eat anything that isn't processed food, and I think that those chickens are just kind of coming home to roost. Then add to that this kind of vegan, save the world, animal products are going to destroy everything idea, and you're further removing nutrient dense foods from the diet.

Nicki: Right, and then the associated lifestyle aspects too. When we were kids, when our parents were kids, surely people were outside all day long.

Robb: Right.

Nicki: Now most kids are indoors the bulk of the day.

Robb: Right.

Nicki: It all kind of compounds together.

Robb: Indeed it does. John, interesting question. Again, I don't know if I did, if we did any type of justice on answering it, but definitely an interesting question.

Nicki: Okay. Any other thoughts before we wrap today's show, hubs?

Robb: I try not to think. I just find it gets me in trouble.

Nicki: All right, folks. Thank you for joining us for another episode of The Healthy Rebellion Radio. Remember to check out our show's sponsor, LMNT, for all your electrolyte needs. Remember to get your hands on some Grapefruit Salt before it's gone. You can do that at drinklmnt.com/robb. That's drink, L-M-N-T.com/R-O-B-B, and join us in The Healthy Rebellion if you want to take part in any of the fun things we have upcoming this summer, including our book club, the breath work challenge, the rucking challenge, survival courses, and lots more. You can do that at join.thehealthyrebellion.com.

Robb: Bye, everybody.