

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.

Nicki: 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 occasion expertise. If foul language is not your thing, if it gets your britches in a bunch, well, there's always Disney Plus.

Robb: Good morning wife.

Nicki: Good morning hubs.

Robb: What's new and exciting?

Nicki: Another day above ground as you like to say.

Robb: Are you still all verklempt over the elephant preserve?

Nicki: It was really cool.

Robb: That was a ton of fun.

Nicki: It was really cool. I know you were-

Robb: I was teasing you, guys-

Nicki: ... hesitant.

Robb: ... mercilessly. I was not hesitant, I was just exploiting your vulnerability to tease all of you.

Nicki: It's okay.

Robb: But it was a ton of fun.

Nicki: We got thick skin over here.

Robb: You do. You do.

Nicki: Not as thick as an elephant though. That was really cool because I was asking the girls, I'm like, "What do you think the elephant's gonna feel like?" And obviously, we've never touched an elephant before, so we were guessing it would be tough, but rough maybe and thinking of different things in the house that might be similar to how an elephant feels, how their skin feels. The thing that we didn't anticipate is how much hair they have.

Nicki: It's not thick hair like we have on our heads, but probably every half inch they have-

Robb: It's like one big strand-

Nicki: ... like a wirey, one long like wirey... Almost feels like a little twig sticking out. So it was-

Robb: I think your twig analogy is terrible. It's like a wire brush.

Nicki: A coarse brush, yeah.

Robb: Yeah, it's like a wire brush.

Nicki: Yeah. Anyway, it was super cool and really great place. If any of you live in this area or visit this area, it's an hour-and-a-half experience and you get to-

Robb: Friday, Saturday, Sundays are the only time that they run these things.

Nicki: Mm-hmm (affirmative). They've got five female Asian elephants ranging from, I think 32 was the youngest one and the oldest one I think was 58. Apparently elephants can live until they're-

Robb: 60s in captivity-

Nicki: ... 60s. Yeah. So it was pretty cool.

Robb: But folks did not come here to hear about elephants, although maybe interesting.

Nicki: Watching them eat was actually really cool.

Robb: Do you want to talk about that real quick?

Nicki: Just really quick. They can eat like 150 to 200 pounds of food a day each. And they're herbivores obviously, but they did a little snack time thing. There was like a giant cantaloupe, a bunch of bananas like all hooked together like a bunch of bananas come, some potatoes, carrots and some corn on the cob, years of corn on the cob. Each of them had like a little tray-

Robb: A trough.

Nicki: ... in front of them. They can grab with their trunk the cantaloupe, wrap it in their trunk and reach it up into their mouth and chew the whole thing in one bite, and like five bananas clumped together in one bite. It was pretty cool to see.

Robb: You don't fully appreciate how large they are until they ball up a whole large cantaloupe, stuff it in their mouth, start chewing and then immediately reach down for like a bunch of five bananas and don't even really break stride and stuff that in, and you're like, "Okay, these are really big critters-"

Nicki: It's just snack time.

Robb: Yeah, it was just snack time. It wasn't the real deal meal.

Nicki: Yeah. No, but it was a super cool trip.

Robb: Yeah.

Nicki: Let's see. What else do we have to announce? All of the three new element flavors are now available-

Robb: They're indeed.

Nicki: ... widely. We did a little pre-release for some folks last week, but now as of the day this episode is released, they are available. So there's chocolate salt, lemon habanero, and mango chili, which are quite tasty.

Robb: I have to admit, the two spicy flavors are quite good in water by themselves, but as a drink base-

Nicki: We've had some folks that received early samples.

Robb: ... with tequila, they are amazing.

Nicki: Yeah. They've mixed them with a little bit of tequila, vodka and... But even as a mocktail, if you just wanted something different over ice or with club soda or whatever, they're great that way too.

Robb: They're a bit phenomenal, yeah. And then the chocolate one, we've been putting in coffee, little splash of heavy cream with it and it's amazing.

Nicki: Yup, yup. Let's see, what else? Our 30-day rebel reset is gearing up to start here in a few weeks. That begins on September 14th. So if you're interested in joining us for that, it's always a good time.

Robb: They're all throw out there too. We are going to do a salty talk on homeschooling, and that's going to be one that Nicki... I will probably be the question person and Nicki will probably largely be the answer person on that one because she really researched and spearheaded the way that we've done this. There's a lot of interest. We've received a lot of questions about it and I think tackling it in a succinct format like that.

Robb: So we'll probably shake you all down for some questions, particularly in The Healthy Rebellion first, and then maybe more broadly on social media. But we will be doing that the next couple of weeks because the decision to go to school or not is looming for a lot of folks.

Nicki: A lot of people are, have made the decision, at least for this year to give... Sometimes people have like, "Oh, I wonder what it'd be like to homeschool. I'm not quite sure if it's for me." But then with all of these circumstances surrounding schools reopening, and COVID, and the different requirements, and how they're restructuring things, a lot of people are like, "Let me try it. This seems like a good opportunity to try it."

Robb: Time to try it, yeah.

Nicki: So we'll be tackling that in an episode coming up here in a couple of weeks, and I think that's it. What do you got for our news topics today?

Robb: This was actually a UC Santa Barbara piece, I want to say.

Nicki: Yeah, UCSB.

Robb: UCSB, it's in their magazine called The Current Local Food. Researchers examined food supply chain resiliency in the Pacific during COVID-19 pandemic. It's really cool in that if there are some good things that came out of this COVID experience, it really did expose

the brittleness of our food system. Imagine where we would be had COVID been as bad as what the initial thoughts were, like a 1% infection fatality rate and stuff like that.

Robb: Not only would that be horrific for society at large, we've already seen how incredibly impactful this has been on the food supply. Food shortages, apparently China's experiencing food shortages at this point, JBL, which is the Brazilian owned meat company just made a move to phase out all of their lamb production in the United States ostensibly to be able to monopolize the market of selling Brazilian raised lamb into the United States.

Robb: And there was actually a court order halting that process, and that's going to be under review and everything. But this food sovereignty topic is a really big deal. And I got to say, people like Diana and I, and many other people have been beating this drum, but nobody has cared at all. It's been very difficult to get anyone excited or animated about this.

Nicki: It's not as sexy as a lot of other things that are-

Robb: It's not abs, it's not skinny jeans. It's not people doing burpees, and thrusters, and pull ups.

Nicki: Or vaulting off of buildings, doing hardcore.

Robb: Or vaulting off of buildings. But it's super important. So there is some good that's come out of this. Basically what this paper talks about is the real need. It's funny, I was having a discussion with a guy online, vegan chap. We're going back and forth over this resiliency stuff and the regenerative agriculture and he said, "Listen, Robb, if I lived on a desert, I would absolutely employ regenerative agriculture because that would be the only way that I could feed myself, my family, and maybe extended community."

Robb: And I said, "Hey man, you live on an island called planet earth and it's all fractal. It's self similar at all scales." And it's not to say that everybody needs to eat a carnival diet, it's not to say that everybody needs to eat beef and lamb for that part. This stuff is going to be very geographically dependent on the resources and the opportunities there. But if we continue down this globalization of our food systems, there will be no resiliency.

Robb: And if one big hiccup happens, if something happens in the European or the U.S. food production system, not only will those places be horrifically impacted, but these developing nations, these island nations that have become completely dependent on food import, it's going to be horrific. If people are rooting for a massive population reset, that's a damn good way to affect that.

Robb: So there's many, many issues out there that need to be addressed and one of them is the number of tabs that Nicki has opened because I can hear her computer screaming right now because it's little brain is just like, "Fuck, there's too much going on." But above and beyond that, this food sovereignty and resiliency piece, it really is important. I think that more people than ever are actually interested in this topic.

Robb: But we really can't afford to just let this become a nonissue again, we really need to double down on what we're doing with this to bring as much of it to be as we possibly can.

Nicki: Okay.

Robb: And Nicki closed about eight of her like-

Nicki: I just closed eight of them.

Robb: ... 800 tabs that she has opened. And I did for the person that recommended one tab. I did install it in here, but Nicki is allergic to using one tab, so-

Nicki: No, I just need to practice. My problem is, is I would click it and... I don't know. I need another tutorial. It wasn't stitchy.

Robb: I'll get you up to speed, wife. I'll get you up to speed.

Nicki: Okay. Thank you.

Nicki: Okay. Let's announce our t-shirt review winner for this week. It goes to Bellini Mind, Body. "Finally, a voice of reason. I love how Robb and Nicki don't sensationalize these health topics. They approach everything with thoughtful science-based open-minded discussion in a world of talking heads screaming at each other from their dogmatic islands. This podcast is such a breath of fresh air of what a real thoughtful considerate discussion of these topics is like.

Nicki: I too listen to this podcast on my runs and find myself speaking out loud my questions or opinions as if I am part of the conversation. Their style makes me feel welcomed to speak up and engage in the discussion. Fantastic job, Robb and Nicki. P.S. I love the elemental electrolytes and drink them all day, and I can't wait for the new flavors, especially the chocolate salt as that will be added to my morning coffee.

Nicki: Then I will be able to say, 'I don't ever drink anything without my element salts in it.'"

Robb: I guess that's good.

Nicki: Bellini Mind, Body. Thank you for your review. Send us an email to hello@robbwolf.com with your t-shirt size and your mailing address and we'll send you a Healthy Rebellion Radio t-shirt.

Nicki: This episode of The Healthy Rebellion Radio is sponsored by our friends at Paleovalley. They make the cleanest, gut-friendly protein snack you can get your hands on. Their 100% grass-fed beef sticks are sourced from American farmers practicing regenerative agriculture and they don't contain any harmful chemicals or additives that you'll find in most meat snacks.

Nicki: Paleovalley beef sticks have zero grams of sugar. They're gluten-free, soy-free, grain-free dairy-free, non-GMO and conveniently packaged individually so that you have the cleanest, most delicious protein snack for on the go. And these are an absolute must have for us. I always have some in my purse, you carry in your Fanny pack.

Robb: I have some in my man purse, in my Fanny pack. Was Kirk Parsley was looking in my Fanny pack while I had it on. He's like, "There's some sort of a joke around you having a bunch of meat sticks in your Fanny pack, but-"

Nicki: The girls absolutely love them-

Robb: They crush them.

Nicki: ... so they're just definitely something that we keep on hand. We travel with them. We even took some to Schlitterbahn.

Robb: We did. It's cool to have a snack that we can just have out and the girls can hit it with reckless abandon. Whenever they want them to go get it, be self directed, no problem. Not all snacks lend themselves to that. Some things, you're like, "Ah, they need to pump the brakes on that." Even fruit for the kids because they will eat it until they shit like geese and they're like, "Oh my stomach hurts."

Robb: And it's like, "You ate a whole watermelon." So the meat sticks are cool in that regard and that the girls never turn them down. But there doesn't really seem to be like a fatal dose attached to it.

Nicki: No. No, no. Paleovalley beef sticks, they're definitely a must have. And they come in actually five flavors. Our favorites are, let's see, the girls love the original, and the summer sausage. I'm a huge fan of the-

Robb: And Sagan will dabble with the jalapeno.

Nicki: Yeah. And jalapeno is my personal favorite. Check them out. Go to paleovalley.com/thrrsnacks and use code THRR10 for 10% off your order. That's paleovalley.com/thrrsnacks, and the code is THRR10.

Robb: What's the code again?

Nicki: Hubs.

Robb: If my microphone wasn't in the way I would have got the backiest of backhands just then.

Nicki: Okay. Let's head on to our first question for this week. This one's from Brian. He's curious. He has a question ketogenic diet with fasting. "Robb, I've been on a paleo ketogenic diet for roughly a month now and fasting from Friday nights until Sunday afternoons or Monday mornings. Started with fasting blood glucose of 95, elevated liver enzyme and bad cholesterol.

Nicki: I'm not able to test liver enzymes and cholesterol for improvement until my doctor determines I need another test, but my fasting blood glucose is down considerably. During the week, I'm eating at or close to a caloric balance and using the weekend fasts to create caloric deficit. Thus far, I've dropped 10 to 15 pounds with no loss of strength leading me to believe that the weight loss is primarily fat.

Nicki: That said, while fasting this weekend, my blood sugar went as low as 53 milligrams per deciliter. I felt fine and had no symptoms associated with hypoglycemia. My energy levels were normal, mental function was unimpaired, and heart rate was steady. But since I can't find any credible information on blood sugar levels during fasting and ketogenic dieting, I don't know whether I should be concerned and reduce or eliminate the fast.

Nicki: Can you point me in the direction of any research that may help me to understand whether what I'm experiencing is normal or if I should be concerned?"

Robb: Really good questions like some great questions in here and there's actually... It's interesting. Brian's last question there is what is he doing normal or should he be

concerned? Those are not mutually exclusive is the thing. Peter Tia talked about this and Peter... It's funny. I'll toot my horn a little bit. I feel like we were out ahead of this stuff by about a decade.

Robb: We wrote the first article that we had published in the performance menu on fasting in 2005, intermittent fasting, and we wrote maybe three of them that year. Then by 2006, I was deeply regretting releasing this stuff because we had people doing CrossFit, doing super low-carb, doing high motor workouts, doing 22-hour fasts virtually every day. And folks would pop up and initially they're like, "Oh, I feel great. Everything's good."

Robb: Then a couple of months in, "I have no libido. My hair's falling out. I'm cold all the time. What happened?" It's this thing of just that too much of a good thing can be too much. And virtually everything in biology, there's a U-curve attached to it. Too little of it, and it's a problem, too much of it, it's a problem. Some kind of Goldilocks stuff in the middle is where we would really like to see things.

Robb: This situation is completely normal. Peter actually dug up the paper that was blanking on the guy's name. He's one of the early ketogenic diet researchers, but they managed to get... You would never get an IRB to pass this thing now. But they took folks that were fasted and applied a significant bolus of insulin and they dropped their blood glucose levels down into the 20s.

Robb: Now, this would normally bring somebody into a coma, potentially even death. But in this state, the ketones appeared to be sufficient to... Because there was virtually no glucose to be found, it just basically shuttled all the glucose out of the circulation. I don't know that this is a good place to be forever and always. I could see ramping up to this using it as a bit of a reset.

Robb: But somewhere in the mix of this story, I could make the case that maybe you need some higher carb days in there occasionally. I did the whole talk this year, which you can find this in *The Healthy Rebellion*. It's available in some other places too. Longevity, are we trying too hard? So this facet... I get the sense that the main goal of what Brian is doing here with the fast is as a weight loss approach.

Robb: There may be some other things baked in the cake with that, but that seems to be the main goal and it's set up in a pretty smart way. It's not super different from what I do, which is, I generally just set my calories at about where I would see maintenance occurring. Then on workout days, I don't really adjust it up all that much. If I have a real burner of a day, if I lift weights and do Jiu-Jitsu on the same day, then I eat some more food.

Robb: But other than that, I have a pretty monotone calorie intake because it just makes meal prep easier and all that stuff. And then I let my activity level dictate whether or not I get into a calorie deficit. Some days like our longer Jiu-Jitsu days, you and I frequently only get in two meals. Usually I get in breakfast, lunch, dinner, breakfast and lunch being bigger, dinner being a little bit smaller.

Robb: But those days, I get in less and the next day I'm usually pretty hungry and I haven't really done a lot of monitoring on that, but I suspect my blood glucose's pretty low. I'm rambling now. This is normal. I don't know that it's good indefinitely. I would pay really close attention to any signs of low thyroid, of low libido.

Nicki: He's only a month into this-

Robb: He's only a month in and a lot of folks-

Nicki: ... so this is early.

Robb: ... report like feeling great. But the interesting thing with both fasting and ketosis, particularly in the beginning, there is a stress response associated with that. And that stress response, I remember when I would hit some of my manic phases writing the book where I was sleeping less and really going. You feel on, you feel great until the fucking wheels fall off the wagon, then you just like... Nicki has to hide anything that I could potentially hang myself with at that point.

Robb: It's oftentimes, it's not a gradual thing. Like you're just motoring, motoring, motoring, bam, you fall off a cliff. So I would just be careful with that and I wouldn't be afraid of say, like on your regular eat days. If you do some harder training, drop some carbs in there, do some fruit or something like that pre or post workout just to switch some stuff up to goose the metabolic flexibility a little bit.

Robb: Because if we have seen people blow up in general around this stuff, this is it, this is the way that they do it. You have any other thoughts along that?

Nicki: Yeah. I don't know, just seems like... I know a lot of people do daily intermittent fasting, but he's essentially doing a-

Robb: Two to three days.

Nicki: ... two-and-a-half-day, three-day fast every week, which seems a lot.

Robb: I think he starts getting obsessed-

Nicki: And he's saying that he doesn't have any loss of strength yet. But again, I think that would be something to pay attention to, especially with the stuff that you're working on with Ken Ford, and sarcopenia, and obtaining muscle mass so that we age well and our metabolic engine. You want to be real careful with losing any muscle.

Robb: Could even make the case. Maybe you drop it down to one day. If you want to do this weekly, maybe particularly as you get leaner, maybe drop it down to one day, maybe-

Nicki: More is not always better.

Robb: No, no, definitely not. Yeah. Yeah. Good thoughts.

Nicki: Okay. Let's see. Our second question this week is from Thomas, a pseudo vegan with low T, T3 and RBCs. "Hi Robb and Nicki. I recently discovered Robb's work from The Joe Rogan Experience Podcast and I've been wired to listen (haha) to your wisdom ever since. I'm 5'10, 190 pounds and about 15% body fat and I take Laval levothyroxine-"

Robb: Levothyroxine. Thyroid medication.

Nicki: Okay. "B12 and iron supplements. As a rower in college, I was able to stay relatively lean in athletic, but my energy levels were horrible. So I tried a vegan diet from sophomore to junior year. When that didn't work, I finally decided to get a blood test and my results were testosterone, 123 nanograms per deciliter, T3, 2.1, T4, 0.9, TSH, 0.98, and RBC, 4.15, and hematocrit, 39.7%, all of which were below or on the very low end of the ideal range.

Nicki: I continued vegan-ish diet while adding very small amounts of dairy, eggs and poultry, as well as an iron B12 and levothyroxine supplement. My senior year, my lab results didn't improve much, but I decided to ignore it because I was performing and looking okay. Now at 23 years old and out of college and still eating primarily vegan, I'm gaining body fat and still weak, but I want to eat sustainably and healthily, which led me to you and to realizing that veganism may not be the answer.

Nicki: What is the best way I can improve my health while also supporting the right food system? Thanks so much. I think you and Nicki are leading one of the best health platforms out there. Thomas." And then he submitted a second email and he said, "Sorry, this is adding to my previous message to add some more context. I track my macros and over the past month I've been averaging 100 grams of protein, 100 grams of fat, and 450 grams of carbs.

Nicki: I get my protein from nuts, legumes and some vegan meats, but I'm not considering going back to meat because I'm still always hungry. My goal is to be healthy and sustainable and to get down to 175 to 180 pounds. I've been getting more and more confused with the ongoing high-carb versus low-carb as it seems, there are experts, MDs, PhDs, et cetera, on both sides. I appreciate your guidance. Thanks and sorry for the double email."

Robb: It's good. It's good because that's actually some great context-

Nicki: Yeah, that definitely helps. I find it interesting that he says, "I'm not considering going back to meat because I'm still always hungry." That's a little confusing for me.

Robb: Yeah. It's-

Nicki: And it's hard obviously when you're transitioning from being vegan for several years. But it sounds like he's only... Since he went vegan, then he started adding dairy, eggs and poultry, but I don't know that he's ever... My question is, has he ever tried to eat for his size, 150 grams of animal protein in a day? And how has that affected his-

Robb: His energy and what not.

Nicki: ... energy and his appetite.

Robb: Because it's sounding like he's getting very meticulous and needing to count protein from nuts, and beans, and all that type of stuff. This is one of the points that we made in Sacred Cow. If you're going to get your protein from exclusively plant-based sources, you're either going to eat all lot more calories than what you would need from a little bit more meat-centric of a diet.

Robb: Diana had a comparison that like a three-ounce piece of skirt steak or something like that was like 23 grams of protein highly bioavailable. To get the same amount of protein from beans and rice, and that would be like 230 calories to get the same amount of protein from beans and rice. It was like nearly 800 calories. That's not as complete a protein. It's not as absorbable of protein. That was just to match it-

Nicki: There's also a big carb load there.

Robb: There's a significant carb load there, which some people do okay with, a lot of people don't. And the interesting thing is if you're looking at whole food, vegan-sourced proteins, you may need to eat 40 to 60% more total protein to end up at more or less

the same spot. But that means you're eating enormously larger amounts of calories in total. So this thing becomes a real...

Robb: This is the interesting thing within this whole ancestral health story, paleo diet and all that. Early on, Matt LaLanne did this nutritional density analysis, and in my mind, it's really the most credible place to begin the nutrition discussion. Like what is the most nutrient dense food that folks can consume? I just had a, I guess, friendly debate over on Michael Russo's podcast with a guy, Professor Greg Schwartz.

Robb: He said, "Man, plants are just so much more nutrient dense because broccoli has this and this has that." But the problem is that the absorbability of this stuff is very low, and that gets greenwashed or swept under the carpet, and this stuff is very easily scientifically established. It's really not a controversial topic, although it's interesting that some vegan back doctors and nutritionists are now trying to rewrite the protein standards and whatnot.

Robb: Trying to make plant proteins look superior to animal proteins on the absorption level. So-

Nicki: Wow.

Robb: ... it's literally this kind of Orwellian new speak deal where it's like science be damned. We're going to change the goalposts and redo this whole thing. So Thomas, as a baseline, I think Nicki's recommendation to just endeavor to get 150, shoot to get 150 grams of protein a day from animal based sources, period.

Nicki: This is a good question, which would be great if we could have a conversation with you because clearly, you've eaten out animal products in the past and you've dabbled with them recently, but you're... It's hard because I want to answer your question. You're saying, "I don't want to go back to eating meat," but I feel like for the reason you're stating the hunger piece, I think could be completely resolved by going back to eating meat.

Robb: And he also said that what's the most-

Nicki: Because animal proteins are the most satiating foods.

Robb: And really quickly, he also did throw out, what's the most sustainable?

Nicki: Right. Which is.

Robb: And large herbivores are... Now, either Diana and I are completely... I guess it's not a binary thing that we're either right or wrong. Maybe there's some middle ground in it, but there's pretty credible evidence to make the case that a grass-centric approach to food systems, at least on the animal husbandry side that produces large herbivores is the most sustainable, regenerative. It causes the least harm. It just ticks all of these boxes

Robb: There's still the reality that things are going to die in the process of us eating, but that happens anyway. This is again, some of the stuff that we talk about a ton in Sacred Cow. The row crop centric food system is not a bloodless affair. Lots of animals, birds and vertebrates, ecosystems are destroyed in the process of making this food. And it's interesting, again, referencing the discussion that I had with Greg Schwartz over with Michael Russo.

Robb: He kept saying that, say like the rainforest is being cleared for animal products. And I let him say that a couple of times and I said, "Greg, you do know that animals are brought... So they clear rainforest, animals are brought in to further clear the area. Then ultimately what happens is soybeans are planted. And soybeans are the climax species there, That's where it ends." And he's like, "Yeah, that's actually true."

Robb: People are very fast and loose with the facts. The fact that animals are used to help clear the area, I don't know, is that good? Is that bad? But-

Nicki: Is it better to have a cow there than an extra tractor for a few more-

Robb: Yeah. But the end result is that they're destroying this ecosystem to plant soybeans. And those soybeans are then fed to chickens, and pork, and cattle. And it gets processed into soybean oil, and different soy products for humans, and all this other stuff. Which is definitely not sustainable, it's not ecologically benign, but again, it gets greenwashed in this way.

Robb: And it's almost as if destroying the rainforest to plant soybeans is somehow more benign than destroying the rainforest to run cattle. But again, they don't use cattle in these situations as a permanent feature because it's not actually a good solution for these kind of rainforest type areas. So man, it's a-

Nicki: 123 testosterone level is also very, very... For a 23-year old male is-

Robb: Super concerning.

Nicki: ... super concerning.

Robb: Yeah. Man, I got to tell you, being 25 years older than that, it doesn't get better. And if you are at that point now, you don't want to ride this train into your 30s and 40s at that level. Because there will come some point where you're going to-

Nicki: Like my dad is 70 and-

Robb: The last time we checked, his total was in the high 600s.

Nicki: I feel like it was higher than that

Robb: It might've been the low 700s.

Nicki: Yeah.

Robb: Yeah.

Nicki: And he's 70 and doesn't supplement with anything.

Robb: Doesn't supplement with anything, but 15 years ago, he'd started eating a low-ish-carb paleo diet and he works a lot. He works out a little bit. He does a little bit of dumbbell work-

Nicki: He does a lot of like active construction type, gardening, that type thing.

Robb: But the way that Nicki's dad is aging is the way that everybody wants to age. I guarantee you, when you see what he looks like, his physical capacity and all the rest, that's what you're shooting for. And man, you're not set up well for that vector right now.

Nicki: And I get it. His last comment about how there are MDs, PhDs on both sides. This is one of the most infuriating things about our modern situation because it's like what's real? Who do you trust? Everybody's got letters after their name and any side of the fence can find 10 experts that say their thing is the thing. So it's almost impossible for a lay person who this is not your field of study to sort through to whoever has the best headlines and the best-

Robb: Transformations and-

Nicki: Yeah.

Robb: And this is where experts, and I'm doing that with air quotes for the audio part of this, but there can be all kinds of opinion out there, but at the end of the day, this is where folks need to experiment and see what really works best for them. And so, Thomas, this is where I would just recommend, really kicking the tires on something like this. Try to find somewhere locally sourced to get your animal products. Meet the people that are producing that food, talk-

Nicki: Take a tour of the farm, meet the farmer. Read Sacred Cow if you haven't. Watch the film, it's going to be coming out here-

Robb: It's going to be coming out soon.

Nicki: ... in October. You mentioned that you were a rower in college, but I'm like, figure out... Get on a strength training program. You want to make sure that you're increasing your lean muscle mass, that you're doing what you can to increase your testosterone levels. Sleep, all of this stuff because at 23, you want to be at your best year because as you age, and this is the book that you're writing with Ken Ford on sarcopenia.

Nicki: You need your reserves now because each year-

Robb: You hit about 30 and then we start losing. And we tend to lose between three to 5% of muscle mass per decade.

Nicki: So think of it like a bank account. If at 30, your bank account is already... You have 10 bucks in there, you're screwed. But if you're 30 and you've got 100 grand in there worth of muscle, and testosterone, and vitality, and all the things that make for a youthful profile, then you've got-

Robb: Something to work with.

Nicki: ... something to work with as you age the rest of your life. You've got seven years to get yourself in the best possible position you can be to set yourself up for the rest of your life.

Robb: And just as a caveat to that, we know of people that had never strength trained and they'll hit their 40s or 40s, and then they have a come to Jesus moment, and they transform everything. You can build muscle mass later in life, you can turn things around, but man, you really want to bank it.

Nicki: You're in a great spot right now. At 23 years old, you're in a great spot to really set yourself up for success if you do it now.

Robb: Agreed. So Thomas, whatever you do, circle back with us. We'd love to hear from you whatever it is that you do. Again, self servingly, I guess, but check out Sacred Cow. We start with the health and then the environmental, and then finish with the ethical considerations. But I think we make a pretty tight case for why a herbivore-centric food system, at least on the animal product side could be really valuable for health, for the environment, and also from the ethical perspective.

Nicki: Okay. Our third question this week is from Pamela. "Can you clarify something in your book?" And I'm assuming she-

Robb: Probably Sacred Cow. I think, yeah.

Nicki: I was thinking-

Robb: Or it might be-

Nicki: ... it was Paleo Solution because-

Robb: Oh, it might be, it might be.

Nicki: ... it's the antinutrients and stuff, but she doesn't specify. She says, "You make a statement in the book that I do not understand. After describing all the antinutrients and plants, you state 'Even though plants can be difficult to digest and contain some antinutrients, we feel it's important to incorporate a large variety of plants in your diet as tolerated.'"

Robb: So we feel-

Nicki: We feel, okay.

Robb: ... so it got to be Sacred Cow.

Nicki: Sacred Cow.

Robb: Yeah.

Nicki: Okay. "You say that eating raw plants allows one to preserve certain enzymes, antioxidants and water soluble vitamins, and there are certain plants that can be cooked, fermented or sprouted to break them down for digestion and help inactive antinutrients. So this all just confused me. I feel like this contradicts the whole section on antinutrients. Why go through the process of trying to make it edible?"

Nicki: And doesn't raw veggies have the same antinutrients? I'd love some clarification. P.S., I'm a huge fan, and my kids and hubby also practice BJJ."

Robb: Awesome. Man, how to tackle this one? Not everybody is to want to eat a carnival diet. It's probably not appropriate, it's I think a meat-centric diet is just fine. Even for myself, I guess, health-wise, I did it long enough that I'm convinced now that my health would probably be fine, but I just got squirrely. I was like, "Damn, I just want like a tomato or something like that."

Robb: So I get where there's a sense of contradiction here, and I guess there is, but there's... I think that when we're looking at folks in the carnivores scene, if somebody is very sick and they have GI problems or auto immune problems and say they tried paleo and it helped some, but it wasn't enough. Then they tried AIP and it helped a little more. Usually people end up at this carnivore last whistle stop.

Robb: It's last that they go and maybe it's even one cut carnival. They figure out that revise or grass-fed revise are the only thing they can handle. It's great that we find an option for people, but just from a monotony perspective to say nothing of like, "Could there potentially be some longterm issues with nutrient diversity and all that type of stuff?" I think it's reasonable to just noodle on that.

Robb: I guess my thing with this is just that if you have plants that you'd like, explore them and see.

Nicki: And you tolerate.

Robb: And if you tolerate them, then that's great. I guess the main takeaway is that some people notice that... Like Anthony Culpo had a piece where he'd eaten low-carb, then he had some thyroid issues. Then he reincorporated carbs. He figured out that he needed to donate some iron because he had some insulin resistance from some iron overload. Then he was doing well with carbs, but he really likes fruit, but he noticed that he needed to... a lot of the fruit that he ate needed to be cooked.

Robb: He did like stewed pears and apples and stuff like that, and he did well with that. So raw apples and pears didn't work, stewed stuff did, which you're just lightly cooking. So this is just trying to make people aware that there are different ways of doing this. You may not do well with raw broccoli, but if you cook it well as part of a curry, you may do great with it.

Robb: So more than anything, it's just making people aware that there are benefits to all of these and there is also a reality that cooking can and does alter the nutrient profile. In some situations, it makes some things more absorbable like carotenoids typically are more absorbable. Then in some cases, like Vitamin C content decreases, and then some of these like the isoflavones and stuff like that get destroyed in cooking.

Robb: I don't know if that really fully answered the question, but that's why we made that point is just to let people know that there's a variety of options when you look at plant foods.

Nicki: And I think a lot of people reading Sacred Cow, a lot of them clearly are people that have followed Robb and Diana's work for a long time and have been really excited and anticipating this book. But then there's also a lot of people who are coming from the vegetarian vegan world who maybe aren't feeling well or are really curious about how can cows be good for the environment?

Nicki: And they're reading this and they are eating a lot of plants, but maybe they're not feeling great. So a statement like this helps people understand how they might modify the plant material in their diet if they want to keep eating plants so that they tolerate them better, because it's... Lots of people are coming to this material from very different places.

Robb: Agreed.

Nicki: Okey dokey. Let's see. It's time for The Health Rebellion Radio trivia.

Robb: Oh man, this one's going to be a barn burner.

Nicki: They always are. Our episode sponsor, Paleovalley is giving their immunity bundle, which includes Essential C Complex, Turmeric Complex, and our favorite grass-fed beef sticks to three lucky winners selected at random who answer the following question correctly? And Robb, this is going to be elephant trivia today.

Robb: Do I need to trumpet like an elephant?

Nicki: That was a terrible trumpet.

Nicki: Okay, Robb, how many gallons of water does an elephant drink each day?

Robb: 50 approximately.

Nicki: Approximately 50. Yes. That is the answer to this week's trivia. To play, go to robbwolf.com/trivia and enter your answer. We'll randomly select three people with the correct answer to win Paleovalley's immunity bundle. The cutoff to answer this week's trivia and be eligible to win is Thursday, August 27th at midnight. Winners will be notified via email and also on Instagram. This is open to residents of the U.S. only.

Nicki: 50 gallons of water is a lot.

Robb: It's a lot of water.

Nicki: And if you've got five elephants, that's 250 gallons a day that these elephants are drinking.

Robb: Homeschooling is paying off for you.

Nicki: I know, it is.

Nicki: I was thinking about though, like in the wild when elephants kind of migrate to a water source, if it's-

Robb: They could do some damage on it.

Nicki: They could just suck dry if there was a relatively large herd of them.

Robb: You think about a herd of like 1,000 elephants or something.

Nicki: Yeah, was crossing my mind.

Robb: Yeah.

Nicki: Okay. Our fourth question this week is from Carl on chemicals in coffee. "Hey Robb, I'm wondering if you know of any chemicals in coffee that could be causing weird symptoms and why most everyone can drink coffee without these symptoms. When I have even a sip of coffee, black with MCT oil, butter, Lion's Mane coffee, it doesn't matter, I get very agitated and have the worst anxiety. I almost feel psychotic if I have a full cup.

Nicki: Whereas if I were to drink an energy drink containing much more caffeine or take caffeine pills, I feel just fine and get none of those weird symptoms. Is there a chemical in coffee that could do this?"

Robb: There are 100s of chemicals in coffee. I think in a previous episode we talked a little bit about Cyrex Labs and that they do some testing on gluten cross-reactivity. I'm guessing here, but there might be something to this. It'd be interesting if Carl was identified that he's gluten-reactive and then the Cyrex Lab tests demonstrating whether or not he's getting some immunological cross-reactivity going on there.

Robb: But this is what that sounds like. If you get the immune system agitated, you release these pro-inflammatory cytokines and you're on a heightened alert. It's very consistent with that.

Nicki: I've never heard of anybody having this kind of reaction to coffee.

Robb: Even decaf coffee, I get a little jittery from it.

Nicki: You get a little jittery, but you're not feeling psychotic.

Robb: It's not that bad, but I... Caffeine in general now across the board, it's a little bit different, but-

Nicki: And you go seasonally with caffeine.

Robb: I go pretty seasonally.

Nicki: Like in the winter time you tolerate coffee a little bit more, in the summertime, not much at all.

Robb: Less. Yeah. But I would check out Cyrex Labs to see if there's some sort of a cross-reactivity here.

Nicki: Is that a blood test?

Robb: They do a blood test on that. Yup. Yup. If it's not that, again, there's just 100s of chemicals in coffee and I don't know which one. I did some poking around on this, but there wasn't... Usually a few, it's not across the board. Caffeine can be like an anxiety-provoking substance for some people, particularly if it's consumed late in the day, and it's disturbs sleep. Then it seems to be more of the sleep disturbance that may be the big driver with that.

Robb: But for some people, it's an anxiolytic, it reduces anxiety. So again, it's just all over the board.

Nicki: Okay. Carl, we'd love to find out if you do that test and-

Robb: Yeah, for sure.

Nicki: ... let us know what the results are.

Nicki: We have a question from Kevin. This is our last question this week, chomping teeth at night. Kevin says, "I love the show. I will try and make this brief so I don't waste your time." Kevin, you're never wasting our time. This is what we do. "About three years ago,

I started to have nasty gut issues and bad periodontal disease, just to name a few of many issues. I've been on a health journey using the ancestral model these past three years. I have greatly improved, but I still have a long way to go to fix myself.

Nicki: Recently, a new issue has popped up and has me at a loss on how to solve it. I know everyone is stressed more than usual right now, but my anxiety has been through the roof with no known cause to contribute it to. Coinciding with the surgeon anxiety has been an issue with chomping my teeth as I start to fall asleep and through the night, and extreme dry mouth at night. I've been trying to manage stress to help this, but I'm starting to think that the lack of sleep from the grinding is causing the anxiety.

Nicki: I've had my sense of smell decline over the past several years, I've found that I have some difficulty with nasal breathing. It's possible that I had a mild case of COVID, but did not get a test. I had some difficulty with breathing during exertion during this possible COVID time. Do you have any info on this chomping issue? Could it just be that I'm stressed and need to do some more Ziva meditation?

Nicki: Quick bio, I'm male, 38 years old, 5'8, 55 pounds lean and muscular. Moderate exercise with running and heavy lifting three to four days a week. Paleo diet with non-strict keto, two young kids and a construction worker."

Robb: You have any thoughts?

Nicki: The first thing that leaps out at me is, I know we've talked about this before, but that book, *Breath* by James Nestor. It says you've had difficulty with nasal breathing, but I think I would focus on trying to do a lot of nasal breathing.

Robb: And maybe the mouth taping also.

Nicki: And mouth taping at night. You've worn a mouth guard for a while at night because of some teeth grinding and you've not worn it for a while since you've been taping.

Robb: Yup. Yup. It's been pretty impressive with that. It's funny, I wouldn't say struggle, but some days we don't always get the second Ziva meditation sit, and then you had some things where we were to inhale and then hold her breath. There's a lot of cool shit out there, but you sometimes just run out of time or even the awareness to do things, but everybody in theory goes to bed at some point and you're going to sleep.

Robb: So this kind of mouth taping and even just spending some time just doing the nasal breathing like a four count in, a little pause, eight count out. I think that that could be really valuable. I have noticed like if I get some weird gut funkiness, my jaw clenching is worse. So I do think that there could be like an endotoxemia piece to that. But this is where, man, it gets so convoluted, like is it some breathing abnormalities that lead into the changes in our pallet structure and everything.

Robb: He lost some sense of smell.

Nicki: He's mentioning that he has extreme dry mouth at night. So in the book, Nestor makes the case, if you have dry mouth at night, it's because you're sleeping with your mouth open, and the number one thing to do would be tape in that case. Because it's not normal to wake up with dry mouth or to have a glass of water by your bedside to quench that dry mouth. And it can also help with needing to get up and pee in the night.

Nicki: There's a lot of benefits to sleeping with your mouth taped. If you haven't, Kevin yet read the book or listened to the audio book if that's easier for you, it is, other than Sacred Cow, my favorite book of 2020 so far. So Breath by James Nestor. And we've mentioned it in the healthy rebellion and obviously on this podcast before, but we've had a lot of people, a lot of community members in The Healthy Rebellion have read it and it's a big...

Nicki: What Ziva was for us last year, this is-

Robb: On par with that.

Nicki: ... I would say on par with that. So highly recommend. And he also found... So he did this experiment where he and a colleague, they plugged their nose for 10 days and blood pressure went through the roof. So basically they'd force themselves to only breathe through their mouth for 10 full days. Blood pressure went through the roof, all of these stress markers went through the roof.

Nicki: Basically if you don't use your nose, if you don't consciously breathe... If you don't breathe through your nose actively, you lose that real estate, which has health ramifications for ongoing. Then they unplugged it and they did an experiment where they only breathed through their nose for 10 days and blood pressure dropped. So it's huge for anxiety.

Nicki: And also he mentioned with anxiety. Actually, now that I'm seeing this, it's jarring a lot of other things from that book. I think it's a great book, but carbon dioxide, he makes the case that people over breathe. And so we're not getting enough carbon dioxide or we're not holding that enough in our system, and that causes anxiety. So he makes the point, "When people are anxious, don't tell them to take a deep breath, tell them to hold their breath."

Nicki: And so there's lots of exercises in the back of the book and he gives some other resources for how to do things to help you build that up. So I don't know, I think that's the direction to go.

Robb: I think that's a great place to explore for sure. And whether or not that is the issue, it's fascinating that the stress can alter gut issues. Now, gut issues can be a stressor, but you have to start figuring out, okay, so what direction am I going to take to address this? But if we have some baseline stress and that stress maybe is caused by some breathing abnormalities, which seems to be endemic, like it's... As few people are metabolically healthy, actually breathe properly.

Robb: So if that's the issue and we could get in and address this, it's the cost of a book. Then the rest of it's free, and it's something that you'll never lose. You just got to stay up on the practice and whatnot.

Nicki: Just like Ziva.

Robb: Even if it isn't the issue, it's virtually guaranteed to improve your health overall. So then whatever other things, maybe the next layer that needs to be peeled in this onion, you're going to be set up better to deal with that. If you're like, "Oh, I got 50% better." That's a great win.

Robb: Then you would, let's say maybe you need to do a anti-microbial round, like a Micheal Russo Gut Reset or something. You're going to be set up better to do that if the breathwork is in place.

Nicki: Yeah. And he was on Joe Rogan a month or so ago too. So that's another resource, you could listen to that. That's how I heard about him in the first place and then got the book. So definitely, Kevin, I would love to have you write back in-

Robb: Ping us back.

Nicki: ... and let us know if you do that, and let us know how things turn out.

Robb: Is that it?

Nicki: I think that's it.

Robb: Sweet.

Nicki: Thanks everyone for joining us. Don't forget, go grab some 100% grass-fed beef sticks from our show sponsor, Paleovalley. You can do that at paleovalley.com/thrrsnacks and use code at THRR 10 for 10% off your order. And what else, hubs?

Robb: That's it. I think I'm going to go-

Nicki: That's it?

Robb: ... grab one right now. I'm snacky.

Nicki: All right, guys. Have a great weekend-

Robb: Bye everybody.

Nicki: ... and we'll see you next time.