

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.

Nicki: Please, consult your licensed and credentialed functional medicine practitioner before embarking on any health, dietary or fitness change. Warning; When Rob gets passionate, he's been known to use the occasional expletive. If foul language is not your thing, if it gets your britches in a bunch, well, there's always Disney Plus.

Robb: Top of the morning there, wife.

Nicki: Top of the morning.

Robb: How are you doing?

Nicki: As I was saying, there's nothing quite like waking up early to jump on camera and record.

Robb: Well, we look our best for sure. If best means get half-warmed over, then, that's us.

Nicki: Yes. Yes. What is new this week in the world?

Robb: Clearly a lot of drama with CrossFit. I think we talked a little bit about that the last go around, so I don't really want to hash too much on-

Nicki: We talked about the tweet, but we did not talk about the new stuff that was aired with Andy Stump's podcast.

Robb: With Andy Stump's podcast.

Nicki: I'm sure we don't need to go into that, but...

Robb: I'll say this. Oh, thank you. Thank you. She's smoothing out my eyebrows.

Nicki: Now you're ready.

Robb: Now I look like a million bucks. Yeah. I was like \$995 before that.

Nicki: You can't have these errant eyebrows.

Robb: Yeah. Andy Stump released a podcast that really... How would you characterize it? It lays down a pretty damning case that there was a ton of sexual harassment that occurred within the CrossFit circles. It's a tough thing. Clearly, we got kicked out due to the Black Box Summit in 2009.

Nicki: We were in early, obviously Robb helped start the first and then our... Excuse me. Our gym in Chico was the fourth-

Robb: In the world.

Nicki: -in the world. And that came online early 2004, January of 2004. And then in September of 2006, we withdrew our affiliation because of the way that we saw people being treated within the organization.

Robb: And our communication with Greg and Lauren Glassman at that time was that we felt that if they continued to treat people in the way that they did they were going to destroy CrossFit. Now, this was before we were aware of any potentially over sexual harassment or anything like that. There was definitely some pretty misogynistic practices that went on, but they were just generally treating people terribly.

Nicki: They were just being a total bully, like a total jerk.

Robb: And so, we made a stand there and it was because I really loved CrossFit, and because I loved the people in the community. And we were, at that time, willing to take a personal hit in the hopes that it would wake some people up. And really all it did is-

Nicki: It did nothing.

Robb: -it got us maligned for a chunk of time. And then as CrossFit grew, they needed somebody that could do everything that Greg did about as well as Greg did; which, at that point, I was the only other person that could get in and run a whole seminar and answer all the questions related to that.

Nicki: And they had just started doing some of these subject matter experts.

Robb: No, that hadn't really happened yet. They were just expanding the level one cert. There really wasn't much in.

Nicki: Right. 2008?

Robb: Yeah. Yeah. The SME, the Subject Matter Expert, stuff came on the heels of that. We got back in at that point with our eyes fully open to the way that things happen.

Nicki: Knowing that we might leave at any time, or might get kicked out at any time, just because of how volatile things were in our relationship with Greg and Lauren. Yeah, we got back in 2008 and then, shortly thereafter, you started doing the nutrition seminars because the Black Box Summit took place November of 2009. And that was a seminar that was hosted in Austin with... I think 50 different affiliates were attending.

Nicki: And then there were about seven to nine of us presenting, affiliates who had been in business for a while and had some unique perspective on running gyms. And we all spoke, to some degree, about our different perspectives.

Robb: Kind of best practice.

Nicki: And ours, the one that I spoke about, was the need for dual branding because in CrossFit there's not quality control within... It's not a franchise, number one, so you can't have the same level of quality between businesses as you would when you're going to a Starbucks or any other franchise where you expect the same. You expect the menu to look the same, you expect the offerings to be presented the same way. And in CrossFit that's not the case because you're just licensing the name and then you can run your business however you want.

Nicki: Which, in some respect, can be great. But as CrossFit grew, it became obvious that some people weren't running their business well and some people were getting hurt. And then that put a cloud in that customer's mind that CrossFit is bad or whatever, or dangerous, all these things that were going on.

Robb: And just to interject really quickly, this was early on but it doesn't take an economics genius to say, okay, how many people are in a medium to small town or even a large urban center. How far are people willing to go to a given gym, and how many people are in that footprint? And then at some point, if you aren't doing a good job, when have you burned through everybody that's available? And what we saw in that lack of quality control, there were situations where somebody was named CrossFit Red City and then it was Red City CrossFit. You know?

Robb: We had some situations where people were selling drugs out of gyms and they had a name that was very similar to a gym that wasn't selling drugs out of it, so there were a lot of concerns. We raised a lot of questions around just basic business structure. We and many other people discovered that you had to have, at least, 50% of your income derived from personal training, personal and small group training. You could not rely exclusively on the big group class. There was a whole host of reasons for that related to quality control. But this was-

Nicki: And also the dual brand. When we left CrossFit originally, all of our branding was CrossFit Norcal so we had to get new signs, new business cards, all of our sweatshirts and t... all of our stuff. We had rebranded to Norcal Strength and Conditioning, so then we had Norcal Strength and Conditioning, CrossFit Norcal. We ran with this dual brand and that's what we were speaking about at the Black Box Summit, and that didn't go over well. There were some other stuff.

Robb: And why didn't it go over well? Because these people don't have control over you.

Nicki: Right. And it made it really easy that if you did want to leave it... People are afraid, I think, to leave because their whole brand is built around that. But if your brand is your own, then, you could peel off the CrossFit side of your brand and go on your merry way. And your customers have always seen it as the dual brand, so it's not as earth shattering as a huge change, which is what we experienced in 2006. It was a big deal when we did that. Anyway, long story short, Black Box Summit came and went and after that we were no longer part of CrossFit any longer.

Robb: And there was all kinds of ugly stuff. At one point the CrossFit HQ released a video that was this weird montage. And as part of the montage, there was a picture that they used to have up on the gym wall. Can I finish this real quick?

Nicki: Oh, yeah. I'll let you finish.

Robb: And there was a picture of Osama bin Laden, there was a picture of Saddam Hussein and between the two of those was a picture of me. Apparently, I was one of the-

Nicki: And Glassman was telling all the new affiliates and all the people internal that we would not fly the American flag in our gym. There was just all kinds of shit like that. That was just this... bullying, I guess, is a good word for it.

Robb: Yeah. And so that went on for a good number of years and then... Gosh, I'm not even sure how to fully unpack this. But I started noticing that CrossFit was really going after big sugar. They did a really amazing expose on the exercise as medicine, part of the affordable CARE Act, which was basically saying that there would be government sponsored money to provide a personal trainer for everybody. But the personal trainer had to focus exclusively on exercise, could not comment on food or nutrition at all.

Robb: And oh, by the way, within the guidelines having up to six full sugar sodas a day was fine within these nutritional guidelines, which is absolute fucking horseshit. It is just totally ridiculous. And the NSCA wasn't taking these people to task because they were complicit in it. The American Council of Sports Medicine was not taking any of this to task because they were complicit in it.

Nicki: Were they all getting funding from Coca-Cola?

Robb: They were all getting funding from this. The one entity on the planet that was actually taking all these people to task was CrossFit. And one day I did a Facebook post which was, "Hey, this is way too important of a topic for me, personally, to be fighting against CrossFit and so I stand shoulder to shoulder with them on this topic." And since that time Greg and I had a little bit of back and forth. We would text every once in a while. I got invited to go out to some of the CrossFit health events, which I ended up declining for a variety of reasons.

Robb: But, despite all the enmity, there was a bigger picture here which needed to be supported in my mind even though we knew that there were potentially some dodgy elements to all that. And I'll be honest, part of the reason why I'm so incredibly angry with Greg and the way that all of this stuff has played out because CrossFit was so important. It could have done so much good. And he should have put some sort of backstops or brakes or control rods into his system so that whatever his personal predilections were he couldn't burn this all down for everybody.

Robb: And this has been my concern from day one. And again, the irony on so much of this like the dual branding, the insistence on some basic business practices, these were the things that would ensure the success of these gyms. And all of that basically got

squashed and crushed and manipulated. And, ultimately, there's just millions of people that put a ton of money, a ton of effort into growing these brick and mortar facilities and now they're really in a precarious position.

Nicki: Oh, a lot of them are appealing out for-

Robb: A lot of them are appealing out. We're going to have Craig Patterson from MadLabs on in a soon to be future episode. These folks, in my opinion, probably at the most elegant-

Nicki: He was the first CrossFit in Canada.

Robb: In Canada, yeah. Super smart guy with business systems. And, in my opinion, they have the most elegant business systems that can be directly applied to a CrossFit type box scenario. And so we're going to have him on soon, and we'll talk about that stuff. I'm not going to really say whether or not folks should or should not keep the CrossFit branding, but I will say if you're going to run a goddamn gym don't run it like an asshole.

Robb: Have fucking business practices, by hook or by crook figure out to have at least 50% of your revenue come from personal training and small group. Figure out a way to start people that isn't scaling. Scaling is fucking horseshit for starting people off. And if you're wondering why you can't rub two nickels together with your business, it's probably because you've been running to the gym the way that the implied methodology is that you get from that level one cert; which is just stick a bunch of people in a room, scale it to where they are. And that just doesn't work. It doesn't work over the long haul.

Nicki: And then all the race to the bottom pricing that was constantly occurring.

Robb: The race to the bottom pricing, yeah. Yeah. Well, we will have a little bit more on that, there will be more stuff popping up on it, but I think telling some of the backstory on this stuff is at least passingly valuable for folks to understand where all this stuff has come from and where we are at this point, and also to really acknowledge the missed opportunity here. CrossFit could have and should have... It really changed fitness, but it was in a position to completely alter medicine. It was in a position to up end the insurance system that is broken in the United States in, and honestly, a lot of other places.

Nicki: But let's be real, all the way along it's been broken because of the leadership, and so that's why we left twice. Left once and got kicked out the-

Robb: Was escorted out the second time.

Nicki: Was escorted out the second time. And then several other really great people have distanced themselves because of just the treatment from leadership.

Robb: But I just can't emphasize enough that was a massive missed opportunity. Yeah.

Nicki: Mm-hmm (affirmative). Yeah. All right hubby, what is your news topic for today?

Robb: Oh, man. Shifting gears a little bit, the title of the article was Methane Accounting for Both Sides of the Scale. And it's a great article from the regenerative ag scene, looking at methane cycles and carbon cycles overall; which folks may be like, "Well, I'm not really interested in that." Well, you probably should be interested in it because this whole topic of climate change is going to influence every facet of our lives from fiscal policy to economic development to food systems.

Robb: You really should be educated on this stuff and understanding the implications of carbon and methane and greenhouse gases as they relate to things like the transportation sector versus the food production sector. And there's a bit of irony in this piece in that one of the main elements of removing methane from the atmosphere is actually ozone, ironically. And it's not to say that we should have just run wild with chlorofluorocarbons, which induce increased amounts of methane, but this is where the shit gets so complex.

Robb: The article makes the case that, ironically enough, urban centers that do naturally produce higher levels of ozone they disproportionately reduce methane out of the atmosphere, ironically. This is where when people make a claim that it's like, "We can't..." I'm not going to go down that road. Edit, Robb backup because we're in an environment now where people just lose their fucking minds with everything. All I'm going to say is this stuff is way more complex than really anybody gives it credit for.

Robb: And if you don't understand better the full implications of the methane cycle, the carbon cycle, and the way that all this stuff fits together, then, we're going to make really dumb decisions about the way to manage this stuff. If you care about your food, and your economic environment, and your families, and your communities, then it behooves you to be a fucking Jedi on this stuff and understand what's going on.

Nicki: There we have it. Let's move on to-

Robb: Maybe we shouldn't do these really.

Nicki: I know. Let's move on to... Our t-shirt winner this week goes to Jada_r, Top Of The Line Nutrition podcast. I followed Robb and Nicki from the Paleo Solution Podcast and the content they're providing in the healthy rebellion is equally as good if not better. This is one of my go-to podcasts for all things fitness, nutrition, and overall health. I am a registered dietician, and I think I get more information from this podcast than I did in four years of college. Highly recommended.

Robb: Awesome.

Nicki: Thank you, Jada. Thank you. Thank you. Send us an email to hello@robwolf.com.

Robb: I mean, it's not a Limerick, but every single one of these can be-

Nicki: I know. Last week's was good. hello@robwolf.com with your t-shirt size and your mailing address, and we will send you a Healthy Rebellion Radio t-shirt. And this episode

of The Healthy Rebellion Radio is sponsored by Athletic Greens. Athletic Greens is an ultimate daily all-in-one health drink with 75 vitamins, minerals and whole food sourced ingredients that includes prebiotics, probiotics, digestive enzymes, adaptogens, superfoods, and more. Athletic Greens... Excuse me. I got my morning voice today.

Robb: You could call Debra Winger on this thing.

Nicki: Athletic Greens is trusted by some of the world's top performers, entrepreneurs, athletes, and Olympians. It's super easy to use. You just scoop, mix with water. It's great if you don't love eating vegetables, but you want to make sure you're getting enough vitamins and minerals. I know back in the day, Robb, we had several clients who just had a hard time eating their greens and just could not.

Robb: Something. And you couldn't find something like this that didn't have some dodgy ingredients that people were reactive to. So Athletic Greens is pretty legit.

Nicki: Or a bunch of sugar and all that stuff, so yeah. And as we shared before, it's also great for kids. We often put it in smoothies, make popsicles for them. And they have a special offer for Healthy Rebellion Radio listeners. If you go to athleticgreens.com/wolf, you'll receive 20 free travel packs with your first purchase.

Robb: Cool.

Nicki: All right. Hubby, are you ready for today's questions?

Robb: We should probably do something related to the actual reason why six or seven people listen to this show. Yes.

Nicki: All right. Then we're going to answer a question from Lorraine on trauma recovery in Ketosis. Hi Robb and Nikki? I've been following you for a few years and have finally started the Keto masterclass. Thanks for offering it during this global pandemic season. This is a way more practical way for me to dive into it versus AIP at this time. I'm a psychotherapist specializing in trauma and I'm a student of somatic experiencing, a modality that draws on the body's innate ability to process and recover from traumatic experiences if we give it the time, space and attention.

Nicki: That's a super short synopsis. We focus a lot on incomplete fight/flight responses that keep us in cycles of trauma and thus high activation, muscle tension, gut issues, pain, and a lot of other somatic symptoms. I'm going through module two where you explain the purpose of Ketones and you say that this frees up the glycogen to only be used when we need it. This makes me wonder if and how the over consumption of carbs, and thus always burning those carbs, can perpetuate this sympathetic nervous system response keeping trauma survivors from being able to regulate themselves.

Nicki: I'll leave that there, to hear how you would parse through that information in your wide ranging knowledge. And we'll reach out with a follow-up if need be. I'm thinking this could be a very useful thing for me and my colleagues to consider; especially as we, as a

society, come to grips with nutrition having major effects on our mood and mood regulation. Look forward to hearing your thoughts. Lorraina in Austin, Texas.

Robb: Yeah. It's really interesting. If there's a place that Ketogenic diets shine, it's probably neurological related stuff and just the rabbit hole that you can go down with that is so deep. And even though Lorraina is making the case that this is like a full body experience, ultimately the bulk of this happens in the brain. We definitely know that for some people the Ketogenic state is magic with regards to neuro-regulation of appetite, improvement in cognition, and wellbeing. But it doesn't do that for everybody.

Robb: Some people feel edgy and anxious, and it's not really inappropriate intervention or it's not an inappropriate tool long-term. Maybe they use it for a week or two, and then they ratchet the carbs up a little more. Maybe they do some pre-workout carbs and do a little bit of targeted Keto approach. It's interesting. I do think that there's a lot of potential application here, but it's not 100% uniform thing as always.

Robb: So often when we start digging around on folks that have problems on Keto electrolytes, adequate protein and that being big factors and that cortisol element that can lead to, I guess, that enhanced sympathetic response. Inadequate, sodium, and electrolytes were a big factor there. But, again, not everybody is a perfect fit for a Ketogenic diet.

Nicki: I know she's specifically speaking about Keto but most people, I'm guessing that the majority of her clients or the people that she works with, are eating a standard American diet which is extremely high in sugar and processed foods.

Robb: Right.

Nicki: Even if Keto isn't the way, just getting these people to maybe go to a whole foods Paleo diet and really cut out all of the pro-inflammatory thing. Because more inflammation in the body, I can't help but think would exacerbate some of... You know?

Robb: Yeah. I mean, it's a great point because just modern process food we know it alters the gut and enhances gut permeability. We have a question coming up later on gut permeability. There are so many different angles that just simply cleaning up nutrition can improve thing, so reduced inflammation and whatnot, like you said, improved gut health, improved micronutrients. People can just be nutrient-deficient on these highly processed diets.

Robb: And it's interesting. When you brought this up, I was reflecting that many people will say that the Ketogenic state is a pro-cortisol state; which it can be, but that's more of a transitional state and/or legitimately not a good fit, or not enough electrolytes. But another thing that is a high cortisol state is constant blood sugar highs and lows. Once your blood sugar goes from high to low, and you're on that carb roller coaster, you release epinephrine and cortisol to goose that blood sugar back up.

Robb: And this is part of how, like somebody heading into type two diabetes, it becomes a wasting disease because the release of epinephrine and cortisol will break down

proteins as a backbone substrate to feed into elevating blood glucose levels. A modern refined diet is not a benign incident.

Nicki: It's not helping your emotional state, and especially if you have had a traumatic experience. It seems like cleaning up the nutrition, decreasing inflammation, sleeping better, all of the things that we talk about, and with somebody capable to start processing this in a great way without having all of this other proinflammatory stuff happening in your body.

Robb: Yeah. Really, Lorraina, great observation. A good question in this. It's shocking that better nutrition is not a first line intervention with therapy and a lot of-

Nicki: All therapy from psychological therapy to physical therapy.

Robb: To physical therapy, yeah. Yeah. And, again, we were talking about CrossFit. Greg Glassman made the point that nutrition is the molecular basis of life. It is literally the building block of which we are built. And if we're building with garbage, is it any surprise that we're experiencing problems? And this is, again, where some of the evidence-based people just make me nuts where it's like... Okay, I don't know what the safe consumption level is on a Twinkie and Little Debbie snack cakes and stuff like that but I suspect it's pretty goddamn low before the knock on effect starts being problematic, at least for the vast majority of people. There's always some outliers out there that fair better but, yeah.

Nicki: Okay. Our next question is from Megan on home birthing. Hi Robb and Nikki? I'm pregnant with my first child and I've been doing a lot of research on natural/home birthing. It makes so much sense to me to give birth this way and yet it seems so many people, including my closest friends and family, are resistant to the idea. It would be super helpful to hear your perspective and how you decided to do it. What factors did you consider and would you be willing to share your experience of having a home birth, and would you recommend it? Megan from Idaho.

Nicki: Gosh, for me, I lost my mom in 2003 due to a series of, I would say, medical mismanagement.

Robb: And there were 13 different mistakes that had anybody not fucked up in one of the 13 mistakes your mom would probably still be alive. It was just thing after thing, after thing.

Nicki: She had rheumatoid arthritis and had had several different surgeries and went in for an ankle surgery. And one thing after another sepsis, pneumonia from being in the hospital, intubation, drug reaction A, drug reaction B. It was just one thing after another, and six months later she was gone. My comfort level with hospitals in particular is quite low. And so when we got pregnant and we were talking about how do we want to have our children, I started reading a lot about home birthing because clearly...

Nicki: And a lot of women their first thought is, "I'm going to go to the hospital. I'm going to get an epidural. I don't want to feel pain. That's what everybody does." You go to the

hospital. I was born in a hospital. That's most people's experience. I started reading a lot. There's a woman Ina May Gaskin, I know she's probably controversial with the standard obstetrics in the standard obstetrics circles, but I just loved the books. And it made so much sense to me that we are primates essentially and all animals give birth in the wild without assistance.

Nicki: I know that sometimes you do need assistance, and often there are deaths during childbirth if you don't have assistance, but I read those books and I just started thinking about it. And one of the things that really stuck out for me was that if a woman is really comfortable, the birth... And the need to be able to be in a variety of positions. In a hospital you most always give birth flat on your back, which is one of the least common or comfortable ways for a woman to give birth. Most women in traditional cultures, hardly anybody gives birth flat on their back. I know there are some hospitals in the United States that do have-

Robb: Birth center birthing options.

Nicki: -the ability to do different things. We have a friend who was able to give birth standing in a shower. They had this shower room in the hospital. But I know that's a very tiny percentage of opportunities for birthing women in the United States. We were in Reno and I was just researching different midwives and there was a woman who had helped deliver over 1,000 babies at that point. It's probably... Gosh.

Robb: Well, it was like 1200 then.

Nicki: Yeah. Yeah. And we met with her and I knew, from the stuff that I had read, that I did want to try this home birthing route. And Robb was comfortable with it. You had a friend in Seattle or somebody who had given birth at home.

Robb: Mm-hmm (affirmative).

Nicki: And then we met Diane and I just felt her experience was so vast and just talking to her, and she talked to me through when... There is a progression in childbirth and a midwife who has a lot of experience and who is trained they know when it's not progressing the way it should. And then she emphasized we would go to the hospital well in advance of you being so tired that it would have to end up in a caesarian section. I was trying to avoid that. And I know that there are some circumstances where that is the only way.

Robb: The only option.

Nicki: My sister had two C-sections, and so I get that as well. But I trusted her and, in my head, I was like, "You know what? This is how we're going to do it. I'm going to do everything she tells me to do. And if she says we need to go to the hospital, I'm getting in the car and we're going to the hospital." But, again, my lack of comfort with hospitals was the primary driver, I think, of our decision to do a home birth. I think that as a woman you need to give birth to your baby where you feel the most comfortable.

Nicki: If that's a hospital for you, then, be in a hospital. If it's a birthing center for you, be in a birthing center. In nature if the animal is frightened it won't go into labor, or labor can stall. And that's the same with humans. Actually even with Zoe, our first daughter, I felt labor starting around 1:00 in the morning and I had called Diane around, I think, 6:00 in the morning. And she had an apprentice or an assistant working with her at that time who came over. I feel like stuff was progressing pretty well.

Nicki: And then she came over around 9:00, this assistant, and said she needed to check to see how dilated my cervix was. And I don't know how many times she had done this before but it really hurt. And I didn't really want to do it, but I let her do it. And after that stuff slowed down, so I don't know. I don't know. I've just read enough that in a hospital, let's say, everything could be progressing well and a new nurse walks in that has a different energy, or they're grumpy, or just...

Nicki: For whatever reason, it can slow labor down and then you're on a clock in a hospital. And so then it's like, "Oh, you've been in labor for 24 hours so now we need to induce you." That was another thing. I just didn't want any part of that for me personally. With Sagan, it was similar. I started feeling early labor signs at 1:00 in the morning and at 6:00 AM called Diane. She had some things that she was going to do. She was like, "How do you feel?" But contractions were getting quicker and quicker, and so she to cancel her 9:00 AM appointment.

Nicki: I called my sister and she got to come because she wanted to be there for this one, which was a two and a half hour drive. And by the time Diane got to our house-

Robb: Shit was getting jiggy.

Nicki: She was like, "I'm not even going to check you. You look like you're progressing." I didn't get checked for dilation and Sagan was born. My sister got there like 20 minutes after she was born.

Robb: After. Yeah.

Nicki: The nice thing about our experience was they brought in a birthing tub and it was able to be set up in our bedroom and they filled it with water. I would get in the bath tub before anyway because that was comfortable for me. And in the tub, you can be in whatever position you want and it feels good. The water's warm. Sagan, I was on all fours. Zoe, I was kind of sitting. But you move around a lot and that's part of it. The ability to move freely and get in whatever position feels good. I think it's really, really important when you're giving birth.

Nicki: It was amazing to be home and not have bright lights and all the other things but, again, that was more what I was looking for. The downsides are, in a hospital, you have nurses and people that check on you and that help you for the first two days or however long you're in the hospital. And when you give birth at home, and we had just newly moved to Reno so we didn't have a lot of friends.

Robb: A big social network, yeah.

Nicki: My mom, obviously, had passed away previously; so, the midwives, they clean up. They're lovely. They clean up and they do everything that needs to be done and then they leave. And so then-

Robb: Then you have two idiots looking at each other and they're like, "We have no idea what we're doing."

Nicki: And then you've never had a child before and you're like, "Oh, okay." I had a lot of challenge with latching Zoe so, in hindsight if I could do it over, I would have had either a friend who had multiple kids that was really great at breastfeeding or a nighttime doula person, just at least for the first couple of days, to help with that in the early days because you're exhausted. You've got this adrenaline and endorphin rush or oxytocin rush or whatever it's called.

Robb: That runs out at some point at some point.

Nicki: That runs out at some point. And so that was the hardest part for us. It's not having help. If you have friends, family-

Robb: Or if you have to pay for it.

Nicki: -or if you can pay for it, I would recommend that if you decide to do the home birthing route. Then one last thing that I'll say on this topic is we have a great friend who had their first child in a hospital. She ended up having a pretty significant cleft palate and had been pretty against, or not open... Home birthing wasn't for her. She was very much like, "I want to do this in a hospital." And her first child had this cleft palette and so there was a lot that they were able to do there.

Nicki: Midwives do all of the same checking once the baby is born. They also have the ability to handle a lot of things during the delivery process. Some midwives even are still trained, if they're old enough, they can deliver breech babies and whatnot that a lot of obstetricians just... they don't get that training anymore. In fact, most of them I don't think get much training in. They get a lot of training in surgery, in caesarian section, but I don't know how much training and how many actual natural live births they're able to see. I don't know.

Nicki: But I will say, in the time of Coronavirus, our friend here she just had her second baby. And the way that they're handling it in hospitals is, because of the virus, you can only have one person in with you. And so she had hired a doula to help with this next baby. And she had already paid for her. And so if the doula was in the labor and delivery room with her, then her husband could not be. And so she had to make a choice. And I know some hospitals probably are completely separating this out by now, but at that point they weren't separating the floor so there could be...

Nicki: Anyway, long story short, she chose to have a home birth this go around and had a fabulous experience, and didn't have to deal with all of the Coronavirus new procedures and policies that are imposed because of that.

Robb: I'll just throw out there really quickly when we were researching all this. Everybody loves to talk about how wonderful the European healthcare system is. Many, many more people in Europe have home births than they do in the United States. It's cheaper. One could argue that it's safer. We've had a few people, we've had some-

Nicki: For being as developed a nation as the United States is the maternal death rate giving birth in a hospital is-

Robb: Is remarkably high.

Nicki: Is higher than a lot of other countries that would be considered a lower-

Robb: Development.

Nicki: -developed country. Anyway, I hope that helps Megan. Again, my main piece of advice to you and anybody is where are you most comfortable. And hopefully your family and friends will support you in that.

Robb: And a quick note on that, if somebody isn't on board with you and they're not 100% supporting you and they might be a bar under the saddle in this situation, they're not fucking invited. They're either on team you or...

Nicki: Yeah. Well, I don't even know but in today's COVID environment you can't invite multiple people to your birth in the hospital.

Robb: I get that. But let's say they have a home birth or something, but they're a dodgy energy. This is absolutely a moment if they're fighting them on the home birth deal they get to stay home. They don't get to participate in that. That would be my recommendation. That's exactly part of the reason why you're doing the home birth. It's to have control over that type of scenario.

Nicki: The space and the environment and what you hear and what you see. Yeah, all of that matters.

Robb: Our children are waking up.

Nicki: Our children are waking up. We tried to do this early before they would wake up, but, alas. Okay. Our next question is from Laurel on coffee and gut permeability. Hey, Rob. Though I'm sure you've seen this, and she links to a paper, in the light of its take on coffee lowering iron I'm not sure if the research mentions its relationship with gut permeability or not because I haven't read the whole thing yet.

Nicki: As I don't hold back on coffee and don't hear you saying you've seen any hard evidence to do so, I wondered what your thoughts were on the research linked below. Could be it's only a negative if you're fighting this type of disease. Cheers. By the way, love, love, love your show.

Robb: The link is to a paper from the Paleomedicina folks, the Paleo Ketogenic diet, which has some really great applications, some great, great stories. I don't think it's the answer for everything, but they're generally doing pretty good work. I wouldn't recommend their approach for type one diabetes. I think that the Bernstein Diabetes Solution approach is much more appropriate. But on the coffee and gut permeability story, there's an outfit called Cyrex Labs, which I've linked to in the show notes.

Robb: And they've been doing these comprehensive panels that look at gluten cross-reactivity with a host of different items. And the list of shit that you can react to is just tear-inducing, and chocolate and coffee are among many of those things. I've never even bothered doing the Cyrex Labs deal because in some ways I just don't want to know. I am just like, at some point, I'm healthy enough that whatever minor niggling problems I have since we've moved to Texas, and I get a lot more sun, my digestion is way better and I feel much better and my sleep is great.

Robb: And so all that's pretty good, but cyrexlabs.com is a place that you could go to to see if you're getting some cross-reactivity from things like chocolate and coffee and whatnot. I think when we look broadly, the epidemiology, generally coffee and tea consumption is very strongly correlated with better health outcomes and lower instances of inflammatory disease and whatnot. I think, in general, it's probably okay to consume the stuff; but, as always, individual differences and dose response curve and all that.

Robb: We've really reduced our coffee intake, I think, with all the stress going on. And particularly right now where everybody wants to fucking murder each other and any misstep on social media is like the end of your career, we're just on edge in general. And thank God for Ziva meditation and Emily Fletcher and all the rest of that, but I've just noticed that my desire for coffee is less. My desire for coffee in the summertime is less.

Nicki: And frequently in the summer it drops. Yeah, for sure. For sure. Okay, it's time for The Healthy Rebellion Radio trivia. Our episode sponsor, Athletic Greens, is giving a one month supply of Athletic Greens to two lucky winners, selected at random, who answer the following question correctly. Robb, what is the name of the tool that you use to take down a 650 pound elk on The Discovery Channel show I, Caveman?

Robb: It is called an atlatl.

Nicki: Atlatl. How do you spell that?

Robb: A-T-L-A-T-L.

Nicki: A-T-L-A-T-L. It sounded like Atlanta, Atlanta.

Robb: Mm-hmm (affirmative).

Nicki: All right, everybody. To play go to rebel.com/trivia and enter your answer. We'll randomly select two people with the correct answer to win a one month supply of Athletic Greens. The cutoff to answer this week's trivia and be eligible to win is Thursday, June 25th at midnight, and we'll notify you via email and also announce the winners on Instagram as well. And this is open to residents of the U.S. only. Let's see. Moving on to our fourth question this week, from Max, he has-

Robb: This one has enough going on to be like 10 questions all in one, but it's good.

Nicki: It's a lengthy one pertaining to Paleo, to agricultural revolution protein timing. Max says, "Hey Robb. Our paths had crossed a bit in the CrossFit heydays via Brian McKinsey and CrossFit Endurance, as I was an endurance athlete and coach for CFE for about six years. Anyway, it was a long time ago, but your teachings and guidance and books have been a boon of information and transformative in my understanding of nutrition.

Nicki: Anyway, I have been ruminating over a few things lately about Paleo and Wired to Eat and all the circumstances around the various points of view, and something occurred to me. Up until about 5,000 to 10,000 years ago, all humans in a four season climate would have been only born in the spring, just like most large mammals. Obviously life born into the early spring and even into the late summer may provide exceptions, but for the most part this three to five month time of the year would have provided the statistically safest timeframe for survival after birth.

Nicki: Taking this into account, then, it is safe to say that only Neanderthals and Homo Sapiens with large winter food stores pre-agricultural revolution, this would only mean moose, caribou seals or the like and large protein resources, could actually provide enough food to sustain life in such cold winters. Hence, perhaps these large gluts of protein intake in younger years is what would have built up such strong bone and muscle as seen in Paleo man.

Nicki: Fast forward to all the skeletons and/or lifelike art images of the middle ages, and most humans are almost a foot shorter and much smaller than Paleo man. Most likely to do the lack of protein at these earlier ages in life as the agricultural revolution had provided an ability to harvest and store grain during harsh winters, rather than only being able to find protein and fat in large animals. The same glut of protein concept can be drawn into today and explain how humans are so much larger, think Lamar Jackson, LeBron James and obviously fatter.

Nicki: Spun forward into, okay, so who cares? Perhaps the timing of a strong protein access source, seasonal gluts from ages two to 12 is also a possible prescription. I know this falls into a very convenient eat locally with the season's Paleo-based protocol but I just can't get my head away from asking, if essentially all humans were born in the spring at some point and then only had mother's milk and protein to eat at such an age until the following spring, what are key observations about what this can tell us from a seasonal age-based macronutrient perspective?" And that was from Max.

Robb: How did this one make it into the list?

Nicki: I don't know. We can blame...

Robb: I did not have complete oversight on this one.

Nicki: Yeah.

Robb: It's really interesting stuff. What exactly is the question? I read this one several times before we rolled and I almost was like... It was interesting, but it was also-

Nicki: I think he's making the case that if in the past most baby humans were born in the spring, and you had just milk and access to protein pre-agricultural revolution, that is what led to stronger, taller, more robust people than post-agricultural revolution. Basically, it's the protein. I mean, you've talked about this with your Victorian era folks where they eat significantly more protein and they were taller.

Robb: Maybe that's a paper to stick in the show notes on this, how the mid-Victorians worked, ate and died. Great paper. And it's interesting because people will make fun of the whole Paleo diet caveman deal but there's pretty compelling evidence that people went from pretty tall and robustly built and low number of dental caries and seemingly low infant mortality rates to transitioning to an agriculture-based diet. And then they had significant problems with that.

Robb: In the case of the mid-Victorian diet, we actually had birth certificates and military records and stuff like that. It's the same natural experiment, but we actually have verifiable records on this. And I guess across the board, whether we're talking about humans or even grazing animals, there's protein leverage hypothesis where organisms eat to a protein minimum. And, in general, the more protein-dense foods tend to also be the more nutritious foods. For me, this is like the Rosetta Stone for all this stuff.

Robb: It explains, oh, this is why... Again whether we're talking about cows, which are ruminants but benefit from a nutrient dense food source, versus humans, which are omnivores and similarly benefit from nutrient dense food sources, but both of them play to a protein minimum. And arguably the best features of these organisms get played out when protein is at an adequate level. I'm not sure if that's answering the question. But again, after much review, I'm still not entirely sure what the question is.

Nicki: I think the answer is, yes, protein is very, very important in health and growth of children and aging populations as well. I mean, really, it all boils down to, okay, previously people had access to large mammals and that's what they ate. And yes, they were strong and robust. And the people that are eating that way today are stronger, more robust, tend to carry a little bit more muscle mass, and as long as they're not eating a lot of protein in conjunction with a standard refined food diet.

Robb: Which is where people, I think, get both tall and chubby. Yeah.

Nicki: Yeah. Okay, that was a doozy.

Robb: But that was the longest question with the absolutely most worthless answer I have ever provided to anything, but-

Nicki: Okay, moving on to Mike's question on eating for your genes, genopalate. "My question is about gene testing for diet. I recently had the 23andMe done, and I sent that data to genopalate. I just wanted to know what you guys think about the idea of eating for your genes and these results overall." And he's included some screenshots of his results, which told him to eat moderately high intake of carbs, moderately high intake of protein, and moderately low intake of fat. And his top fats that he should eat are cottonseed oil, top meats chicken liver, and top legumes adzuki beans.

Robb: Liver is great, but if you ate liver as your staple food you will have probably both iron and vitamin A toxicity issues. This gene testing is really interesting. I've put this stuff through a couple of different things, DNAfit, the FoundMyFitness stuff where you upload your 23andMe data in there, and the best that I've seen come away with this is there are some confirmation bias type trends. It will suggest, "Oh, you probably don't do as well with carbs." Okay, not surprising. "You have much higher likelihood of celiac disease." Okay, that makes sense. I pretty much have that.

Robb: And there was some indication that I may be of a genotype that significant amounts of saturated fat may worsen or exacerbate insulin resistance and may lead to elevated lipoproteins. And I think that that's probably an accurate thing. But beyond that, getting to the level of being able to granularly prescribe a diet and say with authority that cottonseed oil is the preferred oil for you, which is-

Nicki: Right. Or that you should specifically be eating 49% to 56% of your calories in the form of carbohydrate, that seems...

Robb: Yeah. And it's doing this goofy stuff of, "Oh, you can have up to 10% of your carbohydrate from sugar," which is damn. I think this stuff is just miles and miles away from really being all that informative. There are some people like Dr. Anthony Jay who does a specific deep dive into that 23andMe material, but I have no doubt that at some point machine learning will do a good job of being able to take our massive amount of information.

Robb: It'll probably look a lot like the Weitzman Institute piece, where we look at genotype, gut microbiota, maybe some metabolomic sequencing, and we stick all that into a machine learning deal, and then it spits out some preferred nutritional recommendations around that. But I just think that we're miles away from that. Some people like Dr. Anthony Jay, I think, are in a position to do some pretty good divining of the tea leaves. They're able to read between the lines and see some connections with this stuff, but it's pretty labor intensive.

Robb: And even then I don't know how much more that provides other than maybe a little bit of confirmation bias; or maybe we already know, okay yeah, I do really well with carbs,

or I don't really do well with carbs, or my lipoproteins are high. Well, did you try decreasing total fat, because some people in Ketosis see lipoproteins elevate from that? Did you try modifying the type of fat, so you reduce? It's specifically dairy but saturated fat sources in general, and get more mono and saturated fats.

Robb: There's all the stuff that's comparatively easy, and empirically we were like, "Okay, I think this may be a problem. Okay, well, let's play with this." And I don't see any of these genotyping things being a first principles type deal where it informs... We have a newborn baby and we do their genotype and run it through this thing and it's like, "This kid should eat this. Make sure they get their cottonseed oil-

Nicki: Cottonseed and liver.

Robb: -and chicken liver and nothing else." And I'm not saying that this is what these folks are saying, but we're just ages away from that. And honestly, the complexity of human physiology and the interface between more than 20,000 genes, plus an ever changing gut microbiome environment, I'm not sure that anything is going to be totally dialed in on that. It might provide some frame of reference, but the previous question was around some Paleo diet and protein intake concepts.

Robb: I think just taking a little bit of a page from our anthropological history in thinking about that, maybe a little bit about regionally where are your ancestors are from. I'm actually a little bit of an interesting mix where Northern European almost predominantly but then 10% Native American. And the totality of that is that I'm not well-suited to significant amounts of carbohydrate intake, and that's been borne out looking at my whole family, looking at my own physiology and everything. And so I think if you could do a little bit of family history type stuff, that might be informative. And then-

Nicki: And also, just self experimentation to see what works for you. I feel like we're in this phase of society where we want to offload a lot of stuff to apps, and the tech companies are really excited to come in and solve all of our problems. Don't rely on intuition and don't test eating these foods and see how you feel. We'll just give you the answer and you can sign up for our handy app and do that. This goes from everything from fake lab meets and people wanting to patent food to how should we eat and what is the app telling you.

Robb: Right.

Nicki: I don't know. Maybe I'm getting far afield, but I feel like there's this new reliance on technology, which obviously technology is fabulous and it helps in so, so many ways but we can't lose the intuitive self n=1 experimentation.

Robb: I wouldn't call it intuitive. It is this n-1 where we have some benchmark outputs. How do you look? How do you feel? How do you perform? Some basic biomarkers of health, inflammation, and disease. And then we tweak some variables and see how that plays out. I think calling it intuitive is dismissive too much.

Nicki: That's the wrong word, but just sort of experience, personal experience.

Robb: Yeah. Yeah. Yeah, I totally agree with that. And the funny thing with that, that's what I've gravitated towards my whole career and that's what I tend to encourage people to do. And it's virtually impossible to monetize that. Whereas monetizing, "Oh, yeah, buddy. You need to eat cottonseed oil," fucking people do it all day long. And it makes me a little bit crazy because... Again, we're in the infancy of this stuff.

Robb: Maybe at some point we will be able to have a really deep insight into this stuff, but I would just encourage people to think about this. I think it was 1951, 1950. I forget when Watson and Crick delineated the structure of the double helix. And when you look at the information that we've learned about genetics since then, it is stunning. And there was all this hoopla around sequencing the human genome and like, "Oh man, cancer, and this and that. We're going to beat all this stuff. Now we know about the BRCA genes, the breast cancer."

Robb: And it's changed nothing other than mainly scaring people, because having a particular genotype is not a guarantee that it will end up in a specific phenotype, because these things get so dramatically modified by our environment, by epigenetics. And so it's one of these things where it might be helpful. Like somebody with the different breast cancer genotypes, maybe they should do a half a baby aspirin every other day or something because the anti angiogenic process and also the pro-resolution process.

Robb: There's, maybe, some uninformative process like that. But, fuck man, there is just not a lot. That is a super shallow bucket to go looking for gold in compared to all the information that's been generated on this; versus just taking a little bit of a page out of the ancestral health and go to bed at a reasonable hour, get sun on your skin. These are things that we can take to the bank and know, but this other stuff is so speculative. And it seems worse than astrology to me in some ways, because it really does have a veneer of science about it. "Dude, I had my gene sequenced and then they told me to eat cottonseed oil and chicken and liver." And it's like, "Okay, give that..."

Nicki: And adzuki beans.

Robb: And adzuki beans. Give that a shine and if you become a superhero then I guess maybe there's something to this. But I just never see that pan out. Can I wax more eloquent about that in just this dead horse, or are we good?

Nicki: That is our final question for this week.

Robb: It's time.

Nicki: It's time. Make sure you guys check out our show sponsor, Athletic Greens, and their special offer for our Healthy Rebellion Radio listeners. If you go to athleticgreens.com/wolf, you can receive 20 free travel packs with your first purchase. Thank you for listening to our show.

Robb: Hopefully, this one was not too punchy. You got us early in the day.

Nicki: Leave us a review on iTunes or wherever you listen to your podcast.

Robb: Oh, and just a quick reminder, Sacred Cow official release is coming up July 14th.

Nicki: July 14th, yeah.

Robb: We have a ton of cool bonuses for people who are pre-ordering. It is sacredcow.info/book, so if you-

Nicki: Yep. When you preorder, if you submit your receipt to sacredcow.info/book tons of great, great bonuses including full length interviews with some of the people that are featured in the film, some that didn't make the film but phenomenal, phenomenal interviews that you get access to.

Robb: Folks like Chris Masterjohn.

Nicki: And also everybody who pre-orders gets to have a special invite to view the film before it's released everywhere else.

Robb: Oh, there we go.

Nicki: That's another super bonus.

Robb: I didn't know that that cat was out of that particular bag.

Nicki: That cat is out of the bag. Yeah, anyway, I hope you all have a fabulous weekend and upcoming week, and we'll see you all next time.

Robb: Take care. Bye.

Nicki: Bye.