

- 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 Robb gets passionate, he's been known to use the occasional expletive. If foul language is not your thing, if it gets your britches in a bunch, well, there's always Disney+.
- Robb:** Good afternoon.
- Nicki:** I wish it was the afternoon. It's what do they say? BFE used to be a thing. But I guess the E would stand for early instead of-
- Robb:** Usually it meant Egypt.
- Nicki:** Egypt.
- Robb:** In referring to being out in the boondocks.
- Nicki:** I know and I'm referring to it being really effing early.
- Robb:** Isn't that just like up with the chickens and stuff like that?
- Nicki:** I don't think chickens are quite awake yet. The sun's not up. Chickens don't come out till the sun comes up.
- Robb:** Are you a knower of all things chicken?
- Nicki:** I had chickens for three years.
- Robb:** You did have chickens. The coyotes ate well during those years.
- Nicki:** I know. That was tragic.
- Robb:** For the coyotes it wasn't.
- Nicki:** No.
- Robb:** So what's cracking? We have a 30-day Rebel Reset. Welcome, everybody, to The Healthy Rebellion Radio. Sorry.
- Nicki:** Welcome.
- Robb:** Terrible, terrible manners.
- Nicki:** Host.
- Robb:** Terrible host.
- Nicki:** Hope y'all are doing well this fine early morning.

- Robb:** Hopefully you're not listening to this at the same time that we're recording this.
- Nicki:** Yes. Yes. Yeah, we do have our next 30-day Rebel Reset. I know we've mentioned it before, but we're getting ever closer, so it bears repeating. It begins on September 14th. We're going to kick things off with the seven-day Carb Test this go around. Then we'll go into the 30-day Rebel Reset. And then we have a special 30-day Gut Reset with Dr. Michael Ruscio happening on the heels of that. That one will require a purchase of his three probiotic strains to participate. But got a lot of fun stuff coming up here.
- Robb:** We do.
- Nicki:** Yeah. I don't know. I can't think of any other earth-shattering pieces of news or announcements that we have for y'all today.
- Robb:** Well, let's just jump to our news topic du jour.
- Nicki:** Okay. Let's do that.
- Robb:** That is a piece written by Professor Don Layman and the title is How Defeating Coronavirus Starts at the Dinner Table. There's slowly emerging this recognition that metabolic health is just a nonnegotiable feature of navigating this situation. The irony is that it's a nonnegotiable feature of navigating life. I've mentioned a lot of times elsewhere and here that for a long time we've known that there's been this ticking time bomb of metabolic disease, the costs associated with metabolic disease that are moving Western societies towards the brink.
- Robb:** The Congressional Budget Office has been saying since 2005 making a prediction that 2030, 2035, the US is bankrupt from diabetes-related costs. I've also made the point, it doesn't matter if you socialize your medicine or if you marketize your medicine. The fact that the costs are going to increase exponentially is baked in the cake of the problems associated with metabolic disease. It's not about hospital administrators or any of this other stuff. It's that we have a very sick population that becomes ever more expensive to deal with.
- Robb:** You see this in developing countries. Interestingly, it's in developing countries that they're really taking this pretty seriously. We've had some interesting reach-outs from a few folks in fairly high positions in places outside the United States. They're like, "Okay, how do we get out ahead of this?" It requires fundamentally changing food systems and typically getting people back closer to traditional ways of eating. But this piece that Don Layman put up just makes this case that a protein-centric, animal protein-centric diet is the way to get out ahead of this.
- Robb:** If folks have followed us at all, Wired to Eat, Protein Leverage Hypothesis, Marty Kendall's work over at Optimizing Nutrition, Ted Naiman, there's this kind of nexus or convergence around this stuff. But it's good to see some of this emerging. We're six, seven months into this and we could have wiped out metabolic disease in the Western ... If we had tackled this with the hair on fire commitment that we've had to so many other things, we could have probably really mitigated both the death toll associated with coronavirus. We're starting to see some legitimate concerns raised around the knock-on effects, some of these longstanding post-infection syndrome effects.

Robb: Again, it really appears that metabolic health is a major determinant in that. So we've got a link to this in the show notes. I posted a snippet of this on my Instagram feed the other day and it went pretty well.

Nicki: It's hard because I feel like in order for something to be massive change, it would need to be top-down, kind of in the way that when this whole thing came out, masks, social distance, wash your hands, all of that stuff. It's hard because it feels like it's so slow, the work that we're doing, you're doing, and all the people that you mentioned. Just going to Schlitterbahn and seeing these kids who are filling up, buy their ... At Schlitterbahn, I don't know how much it is because we didn't get one clearly. But they have these-

Robb: Giant.

Nicki: Imagine going to Cancun and getting a huge two-foot-tall-

Robb: Adult drink deal.

Nicki: ... clear plastic adult drink with swirl colors inside and you get to keep the drink as your souvenir. They have those at Schlitterbahn for kids and inside are sugary Slurpee-type things.

Robb: These things are like a gallon size.

Nicki: And when you buy it in the thing, you get free refills. So everybody buys the souvenir glass thing or plastic thing because you get to fill it up for free. I just don't know how much grassroots education, how many years of ... How long until our message reaches these families that are buying these for their children? Years. Years and years and years.

Robb: Kind of never.

Nicki: Never.

Robb: That is the really-

Nicki: It's disheartening.

Robb: I would love to be put out of business doing this stuff. If all these problems got solved and then I don't know. Maybe we would stay in the health and fitness space or maybe we'd do something entirely different. But it's a good point because I always kind of advocate for that grassroots deal mainly because when it hits the upper levels of government and media and everything, the message gets-

Nicki: They usually get it wrong, which I get. But I think how to amplify the grassroots message so that it actually takes effect in some of these populations which seem like we're never going to reach.

Robb: Yeah, I don't know. And then we are in this mode now where suggesting that folks, it would benefit them to be more metabolically healthy is now fat-shaming and ableist. So you have people that are actively railing against a message of health being beneficial.

Nicki: We had a live chat, excuse me, inside The Healthy Rebellion Community. I guess when this airs it'll be like a week ago or so, and talking about just how many kids have metabolic disease issues, like pre-diabetes, seriously overweight. These are seven, eight-

year-olds, nine-year-olds, and it's like I don't know. It's heartbreaking. I feel like something-

Robb: Go ahead, go ahead.

Nicki: Something needs to be done because this is only going to get worse. When these seven-year-olds turn into 17-year-olds, we have real, real problems.

Robb: Okay. You told me not to head into this, but I'll obliquely head into this. I posted a piece of someone in politics that was advocating for changing the dietary guidelines to further reduce access to meat with the assumption being that that would improve health and it would mitigate climate change, which is up for debate. Diana and I wrote a book and did a movie and there are a lot of other ... We're not the only ones. The health thing I think is quite easy to debunk. And then the notion that a vegan-centric food system is going to be the answer to all of our environmental woes, once you really start digging into that and looking at it, it's absolutely preposterous. It's a death spiral.

Robb: It was generally well-received, but a good number of people got super cranky because the person attacked. It was basically interpreted as I was attacking the person who made this statement.

Nicki: The politician.

Robb: I was very careful in couching, "Hey, this isn't an advocacy for or against this person or that person or the other person." The problem is that I've been saying for years that this vegan-centric food system, which inevitably feeds into the processed food system and outlets like Forbes and many other places have basically said the way that the vegan diet is being manipulated is basically only going to serve and win big food, period, full stop. Again, I think the majority of people ended up getting that message and were able to kind of deal with the nuance there.

Robb: It's like, okay, maybe you do advocate for this person but there's this general problem that is emerging and growing all the time that this vegan-centric food system seemed to be the bee's knees and it gets all the support from social media, from mainstream media, from at least one side of the political aisle. If all of that messaging is wrong, that's a problem. The irony is if you look around and want to find people that are apologists for these kids drinking these giant tubs of soda, it's the vegans. If you look at what the health and game changers, they kind of eye roll and, "Well, yeah, you shouldn't eat a ton of sugar, but sugar's not really the problem. The problem is animal products and saturated fat." And people believe it.

Robb: We're really in this interesting situation where two plus two doesn't equal four anymore, as an example. When you get to that spot, it really is no longer about having a discussion. This is just kind of psychological warfare tactics to get people just spun up and incapable of talking or interacting or moving forward and just really entrenches people in these camps such that it's very difficult to get anything done. I don't know if any of this is providing any value to anybody at this point, but you make a good point. This is just to finally put an end to this chunk. There was a huge opportunity here to get out ahead of this problem and to look at not just this problem of coronavirus, but these other deeper problems.

Nicki: The health of our country, yeah.

Robb: The health of our country, the health of the world.

- Nicki:** There would have been a big rallying point around it and everybody could have ... Even if somebody wanted to do vegan or do paleo or do keto or do whatever, if people just said-
- Robb:** It could have been completely agnostic.
- Nicki:** ... the way to get metabolically healthy, you need to reduce your sugars, eat real food. Because there's this threat of this virus, it's almost like if there was an alien invasion, we would all rally together and do it. We're all in this together, as they keep saying with all of these different mandates. I think we could have had an amazing outcome.
- Robb:** It would have been far better than what we've got. Yeah.
- Nicki:** On that happy note, we're going to give away a T-shirt. Our T-shirt review winner for this week goes to Jess678935. "If you care to learn about human health, this podcast is for you. This podcast addresses a variety of topics related to overall human health and topics that address ways to mitigate living in a toxic modern world. Nicki and Robb do an incredible job of translating the super-complicated language of science into easy-to-understand, everyday English. I'm forever thankful to both of them for keeping me on track and constantly reminding me that whatever I'm doing is right. It's the vegans who don't have it together."
- Nicki:** "Look forward to every episode. Nothing beats being educated about deep, thorough knowledge of human physiology while laughing at super honest, passionate reactions, speaking about Robb here. So thankful for you guys. I appreciate you so much." Jess678935, thank you so much for sending that review in. Shoot us over 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 sponsored by BLUBlox, the best blue light glasses for better sleep, recovery, and optimal wellness. BLUBlox Sleep+ lenses are their red lenses and they block 100% of light in the melatonin disruption zone, unlike other brands. BLUBlox come in prescription, nonprescription, and readers. In addition to BLUBlox Sleep+ glasses, they also make glasses for daytime use and for digital eye strain as well. So if you're sitting on a computer all day long and your eyes are getting tired, those are a good option for you.
- Nicki:** Let's say you have a pair of frames that you absolutely love. You love the fit. You love the look. You can send them to BLUBlox and they'll add their lens technology to your favorite frames. When you buy a pair of glasses from BLUBlox, they gift a pair of reading glasses to the not-for-profit, RestoringVision. Check them out. Go to blublox.com. That's B-L-U-B-L-O-X .com/robb15. Use code robb15. That's R-O-B-B-1-5 for 15% off your order.
- Robb:** 867-5309.
- Nicki:** No, it's just 678935. I know. That was kind of playing in the back of my head while I was reading the numbers behind her name. Yeah. Okay. Let's see here. We've got our first question of the day. You ready, Robb?
- Robb:** I am ready.
- Nicki:** This one is from Jillian on ketosis and repressed candida immunity. "Hi Robb. Just bought Sacred Cow. Yay and congrats. I recently started the Ketogains Bootcamp, eating according to personalized Ketogains macros. Net carbs under 20, but I've been keeping

them around 25-ish. For the first time in my life, I've experienced mild oral thrush at the very back of my tongue and throat. After looking into it a bit, I've come across this assertion by Paul Jaminet ..." Is that-

Robb: Yeah.

Nicki: She spelled it wrong. I was wondering if there's another guy with a similar last name. "... that ketosis may repress cellular immunity to candida. 'Candida is killed by the myeloperoxidase pathway which relies on glucose, it cannot use ketones, also by antimicrobial peptides. Moreover, immune cells are more mobile and more active at phagocytosis when consuming glucose rather than ketones. So anti-candida immunity is stronger when not on ketosis and getting adequate carbs.'"

Nicki: "This is interesting to me because some other mild symptoms I've had for the past five years, like recurring ear pain, intense temporary ear and eye itchiness, sinus issues, and sore throats have always gone away when I've diligently followed a low-carb or primal way of eating. They always flare up when I return to a standard American diet. So I was surprised to have this new oral thrush as well as all these other symptoms, which turns out may be linked to yeast overgrowth, flare up when eating a ketogenic diet, which is the lowest I've ever kept my carb intake. Love to hear your thoughts and if there's been any more recent research on this topic. So far I really enjoy eating a ketogenic diet, but if these symptoms don't subside do you think it may warrant avoiding ketosis for people like me with a yeast growth imbalance? Thanks for all you do."

Robb: First thing, Paul is a brilliant guy, just a really brilliant guy. But even brilliant folks don't get all this stuff totally buttoned up. Paul was and has been pretty critical of ketosis, of protein intake. I think some of the ideas just haven't really stood the test of time. Paul had a pretty strong cautionary stance around particularly low-carb diets would not provide adequate substrate to feed the gut microbiota and the gut microbiota would consume the polysaccharide-rich gut lining.

Robb: What's interesting is some of what he was pulling from was looking at folks who are eating interestingly a highly-refined carbohydrate diet. So you could eat a high-carb diet at the gut level ... Tackling the gut first and then we'll talk about this idea around the blood glucose level itself. But if everything that you're consuming is super easily digested carbohydrate, then there's nothing left further in digestion for the bacteria to eat and there's no ketones. We've talked about previously in other shows that beta-hydroxybutyrate looks a whole lot like butyrate. It's just gets a hydroxyl group on it.

Robb: If the levels get even appreciably elevated, then it will go from the body into the gut lining and potentially feed the bacteria and we're discovering that the bacteria can shift and they can actually use amino acids directly and make propionate and all the products of carbohydrate fermentation. That was a piece that ended up not really being on point and I think that this is another example. It's not to say that a higher carb intake may not be best for Jillian. But there's kind of a reality that a well-formulated ketogenic diet generally does lower blood glucose levels, but it doesn't crater blood glucose levels in general.

Robb: We had a show or two ago where we talked about some folks that ended up in quite low levels, at least transiently, and we talked about some pluses and minuses around that and how to navigate that. But generally, what we see is that people are just kind of at the low end of normal. I don't see that being a situation in which the immune system is going to be down-regulated because of lack of substrate. If the person is a really high motor exerciser or something, okay, we start getting into some possibilities there. And

then that's also where people who are well-informed and flexible around their ketogenic diet, if you're just following the standard high-fat zone diet and doing CrossFit, you're going to be in ketosis a lot because of the activity and also you're only getting about 100, 120 grams of carbs a day.

Robb: There's a lot of different ways to tweak this stuff. In my opinion, I suspect that this is more of a candida die-off kind of event and that this will resolve with time. But I'd give it a week, two weeks, something like that. There are some things, like olive leaf extract and some other more broad-spectrum antifungals that folks can use in conjunction with stuff like this to help goose it along. But when you look at candida diet interventions, they tend to be low-carb diets. Again, low-carb could be 50 grams a day. It could be 60 grams a day. But I don't see this being a clearance issue.

Robb: That strikes me as being much less of a concern versus chronically overfeeding these things, which reducing carbohydrate intake will tend to starve that candida back. It can have an uptick in presence as it's kind of dying off and that itself can be kind of an insult to the immune system and can be problematic for a period of time.

Nicki: So hopefully within a couple weeks, it resolves.

Robb: We would hope so, yeah.

Nicki: Or she could try titrating her carbs up slightly.

Robb: Up a little bit, yeah. But I still don't think that that's going to be the-

Nicki: The thing.

Robb: The suggested mechanism here doesn't really make sense to me. But again, everybody's different, so you never really know. So if it persists, then that's a clear place to look at for tinkering.

Nicki: Okay. We have a question from Alex on ulcerative, man, this early morning has got my tongue, ulcerative colitis and ostomy nutrition. "Hi Robb. I'm in the middle of your Wired to Eat book and I'm curious to get your opinion on diets for ostomies. Here's a little background. I was diagnosed with severe ulcerative colitis this past March. It hit me full force with very little warning. By the time I was able to see a GI doctor, my colon was in too bad of shape for them to try to treat with medication. I had an emergent total colectomy at the end of March and now live with an ileostomy."

Nicki: "I've tolerated most foods well and don't have many restrictions on what I can eat with my ileostomy. I have noticed a lack of energy, dehydration, and hair loss, most of which I've attributed to lessened nutrient and water absorption. Planning on moving forward with a J-pouch surgery this fall, which will require them to remove a few more inches of my small intestine due to a fistula that has formed. Living without a colon affects my water and nutrient absorption and I'm sure losing more of my small intestine will only add to those issues. Do you have any recommendations on how to combat these issues?"

Robb: Man, I think you just have to ... When you think about decreasing the surface area for absorbing food, you have to really start thinking about nutrient density, so checking out some of Marty Kendall's stuff around the nutrient optimizer and maybe following in that, but with the caveat that I think things like green vegetables, that's going to be

tough. A pretty meat-centric diet, including organ meats, shellfish, fruits in preference to vegetables-

Nicki: What about herbs, like basil and pestos-

Robb: Lots of herbs.

Nicki: ... and chimichurris and those types of things?

Robb: Things like that I think are really smart. It's interesting when you look at the herbs and spices that are disproportionately nutrient-dense. It is generally more difficult to get nutrients out of plants, not everything but a good number of things. There may be a specific nutrient in the plant, but whether or not it gets into your system is another story. But it's a great point. Pestos, chimichurris, things like that, you're processing it. You're emulsifying it in oil, so it's extracting the lipid-soluble components in that.

Robb: I think stuff like that is really, really smart in this case. So that would be where I would look. It's probably going to be a little bit more on the higher fat side of things. Doesn't need to be ketogenic. If hydration and electrolyte maintenance is a challenge, clearly you could do something like LMNT or another electrolyte. But it also might make the case for just being in that moderate carb intake and things like sweet potatoes, maybe even regular white potatoes. They're actually fairly nutritious, all things considered. And then things like nutrient-dense fruit could be a real boon in this case.

Robb: Just keeping the insulin levels up a little bit so that you're not getting that diuresis of fasting and losing sodium, potassium, magnesium, calcium as a consequence of that whole thing. This is pretty in line with what the recommendations are under these circumstances is to consider being a little bit more, they don't couch it quite this way, but easier to digest foods, which usually is like cream of rice and just crap. But the orientation is kind of the same. You really have to think about making it easier to digest because you just have less runway for this stuff to move across. It's a time and surface area consideration as to how much you're going to be able to absorb.

Nicki: Chewing your food.

Robb: Chewing your food really, really well.

Nicki: Making sure that you really, really chew. That helps.

Robb: Soups, stews, curries, all of that stuff improves the ability to absorb it. Yeah.

Nicki: Okay. We have a question next from Tyler about Sacred Cow. Excuse me. He says, "I just started reading Sacred Cow and I'm confused about something. When Robb and Diana state that there simply isn't enough evidence to claim that grass-fed beef is better than conventional beef from a nutritional standpoint, they mention regulations for antibiotics. However, what about growth hormones? Isn't that cause for concern? I've always been under the impression that conventional beef has growth hormones in antibiotics, whereas grass-fed beef does not. Am I wrong?"

Robb: There's a lot going on here. It's a short question, but it's kind of bouncing around a lot. When we looked, again, if there's one thing that's going to make me just be like, "Fuck, I wish we didn't do Sacred Cow," it's going to be this nutrient density consideration or the nutritional differences between pastured meat and grass-fed meat because it's just this ongoing drama. I guess it's also good, in a way, because nobody's really properly

addressing this. But when you really critically look at the differences that are represented in the literature between grass-fed meat and conventional meat, there's just not that much difference.

Robb: I forget if I had this discussion with someone online. Maybe it was an answer in Instagram. I'll concede that if an animal is just on clover and it's been eating clover predominantly ... You can't exclusively feed cattle clover. They'll get sick from that too. But they've been really on vibrant grass and clover and everything, I wouldn't be surprised if there's some nutritional delta there. But even under that best case circumstance, trying to portray pastured meat as if it were salmon is a lie. It is a flat-out lie. It's a little bit different.

Robb: If you're trying to make that case, then you never get to eat olive oil. You never get to eat almonds. Because the omega-6 content of those things is so high that it's just going to wipe all that stuff out.

Nicki: Just a really quick interrupt because I know inside The Healthy Rebellion, Rachel James had made a great post in The Sacred Cow Book Club kind of talking about this. People think, okay, grass-fed, they're imagining in their head you're imagining cows on clover. There's not a lot of regulation around what grass-fed means. So sometimes grass-fed is that they're eating a bunch of hay, which is grass but it's dried and it's maybe older. So there's a whole variety of levels of what is the most pure nutrient, greenest grass.

Robb: There's a really important thing to keep in mind there. Maybe grass feeding has been green washed to some degree, but there's so much of the pushback that comes out of veganland around this story is that we're taking grains and soy and feeding it to animals and that should be fed to humans. I would argue that those things generally shouldn't be fed to humans, at least not in additional amounts. They actually need some animal products in there. But this is one of the beauties of grazing animals is that they can up-cycle the nutrients of very low nutrient-density stuff, stuff that humans cannot extract any nutrition out of.

Robb: When we start talking about scaling this system, if the standard that we're going to live and die by is whether or not those animals were living on clover, then we're done. This whole thing grinds to a halt. Some people can do that. Some people can do that under some circumstances and maybe-

Nicki: Sorry.

Robb: Let me just finish this train of thought really quick. Maybe we get to some spot where there's some distinctions built within that. I don't know that that's really going to help us overall, other than some people catering more to the elites effectively in this story. But there's kind of a reality that to the degree that we do have agriculture of whatever type going on, bringing these grazing animals in after a season is an amazing way of up-cycling those nutrients, of getting that land ready for the next go-around. The animals are not going to be as nutritious by tiny fractions of a percent than if they were on clover. But this-

Nicki: What I was going to say is we don't ... If we want to really regenerate the land, we can't just put them all on clover because there's huge plots of land, like in the Chihuahuan Desert which is featured in the film, which if you look at the before pictures it's pretty desertified. So you want those animals on there eating maybe the less desirable things at first, and then the grasses will come. If we only had grazing animals on existing clover, we wouldn't be solving the desertification problem.

Robb: Correct. Yeah. So I mean there's a lot going on there. There is that piece. The other thing, they don't use hormones in animals. It's been ages since they've done that. It was a very short run. This does happen in other countries at various points. It is true on the antibiotic front that generally if grazing animals are holistically managed, they generally don't need antibiotics. They motor along just fine and they just tend not to get sick. It's that confined area of feeding that fattens them up. To the degree that antibiotics are used even for cows in that circumstance, the antibiotics make the cows fatter. That's why they give it to them.

Robb: It's not actually a disease-mitigating process. It's putting more scale weight on the animal so they can sell more of the animal and make more money on that. It's accelerating the loss of antibiotics as a tool because it's fostering antibiotic resistance and a bunch of other things. There are some legitimate concerns around potential of bio-accumulation of problematic items, like atrazine and glyphosate. I would argue that probably even more concerning than that is the anaphylatoxin which ends up in grain that is fed to these animals.

Robb: But the interesting thing here is that even all these problems as applied to cows are tiny when we compare it to chicken and pork. Chicken and pork are exclusively fed grain and soy products. The only reason why that flavor of industrialization works is because they are fed large amounts of antibiotics, otherwise that system breaks down immediately. As it is, those very dirty systems break down pretty quickly. I'm not sure if I've fully answered Tyler's question. But there's a lot of nuance in this. In my opinion-

Nicki: So the growth hormones aren't a cause for concern.

Robb: No.

Nicki: That's was one of his main questions. And then I think from the conventional nutritional point, I think you've talked to that.

Robb: Again, if you can afford awesome, locally-sourced, pastured meat, great. Do it. Subsidize your local economy and support folks that will support you. We made some great relationships with some local folks here. And then during the more dodgy portions of COVID, we had some good resources to go to to be able to find some food. So make those relationships. But also, the flip side of this is that if you are super tight on a budget, if you're kind of living on the margin a little bit more, you're a student or you're a family just getting going or maybe your job's been displaced due to COVID, then just focus on feeding your family the most nutrient-dense diet that you can within your budget.

Robb: That's probably going to mean conventional meat and that is okay, for now, for later. Until we break this system so that grass-fed meat is legitimately cheaper than a grain-finished CAFO system, which that is the story virtually everywhere else in the world. We've mentioned this multiple times too. You go to Australia and you see grain-finished meat. It's 30% more than the pastured meat because it's a complete farcical system that we have in the United States that makes it appear that that stuff is cheaper. It's just a gamed system. So we need to be adaptable and do some things to be able to make this thing work over the long haul.

Nicki: Okay.

Robb: And again, I don't know if I actually answered Tyler's questions. But that's what I've got.

- Nicki:** It's time for The Healthy Rebellion Radio Trivia. Let's see. Our episode sponsor today, BLUBlox, is giving their REMedy Sleep Mask to one winner selected at random who answers the following question correctly. I don't know if you can answer this question. Robb, what's your favorite thing about 2020?
- Robb:** I'm not dead yet.
- Nicki:** There are a lot of good memes. The meme game in 2020-
- Robb:** Has been solid.
- Nicki:** ... has gone.
- Robb:** Is that what my answer is, the 2020 memes?
- Nicki:** No, no. Your answer can be that you're not dead yet.
- Robb:** I'm dead yet. That'll be it.
- Nicki:** All right, folks. To play, go to robbwolf.com/trivia. Enter your answer and we'll randomly select one person with the correct answer to win a REMedy Sleep Mask from BLUBlox. The cutoff to answer this week's trivia and be eligible to win is Thursday, September 3rd at midnight. Winners will be notified via email and also on Instagram. This is open to residents of the US only.
- Nicki:** Okay. We have a question from Sheryl dealing with chronic mono. "Hi Robb. In February of 2019, I was diagnosed with a recurrence of mono. I had never been diagnosed with mono before, so this in itself was a big shock. I was told that because of my age, I'm 52, that the symptoms would hit me harder and that I could be dealing with it for over a year. They weren't joking. At one point I had to start keeping a diary because I was sleeping from 12 to 20 hours a day. So I never knew what day or time it was and I felt like I was losing my mind. I finally began feeling better around November and within a few weeks ended up back at the doctor only to be told that I was suffering from yet another recurrence."
- Nicki:** "I'm now essentially bedbound. The COVID crisis has enabled me to work from home now, but I take naps during breaks and lunches and go back to bed after work. The only thing that has helped to a degree is electrolyte water and eating nutrient-dense foods when I have sufficient energy to cook. But I'm still exhausted and weak and in a lot of pain and there's no end in sight. I've been so depressed that I've had to start going to therapy by phone. If you have any nuggets of wisdom to spare that might provide me with even a tiny spark of light at the end of this seemingly eternal tunnel, I would be extremely grateful."
- Robb:** Man, I dug and dug on this and pinged a couple of folks. The most accessible thing that I think is credible ... There are folks that will tackle long-term Epstein-Barr virus infections and it can get really complex. They'll start looking at different detoxes. Do you have a heavy metal issue, different things like that that are kind of compromising the system? But what was interesting is I kept coming back to this notion that sunlight exposure and UV could be really helpful here. I have a paper, The Essential Role of Epstein-Barr Virus in the Pathogenesis of Multiple Sclerosis."
- Robb:** It makes the case that Epstein-Barr virus can be a really powerful vector in the development of multiple sclerosis, but deeper in the paper it makes the following point.

"Sunlight and vitamin D protect against multiple sclerosis by increasing the number of CDAT cells available to control Epstein-Barr virus infection." So depending on where Sheryl lives, maybe just getting outdoors and getting sun on your skin. I would get the dminder app. That thing is free. Load it up for your skin type and where you're located and it will give you a pretty good sense of when you're out in sun long enough to get a therapeutic dose, but bailing on it before you start causing significant skin damage.

Robb: If you can't do that, I would really consider a UVA/UVB tanning booth and doing that about as often as you could possibly get in there, if you could do it daily. I know that this gets into this chicken and egg deal where if you're totally exhausted, then it's hard to even rally the energy to be able to do this stuff-

Nicki: Right. To get out of the house.

Robb: ... to get out of the house and do all that. But these UVB-centric, but they include some UVA, these are the tanning booths where you can be in them up to 20 minutes. These are not the, I think they call them the low pressure versus high pressure. It's lower intensity. When I was doing them back when it was pretty overcast here, I worked my way up to about 15 minutes. I started off at seven minutes and then I did seven minutes for one week and eight minutes and titrated up. I never burned. I wasn't even really getting a tan from it, interestingly.

Robb: I was in there brief enough time that I know I felt better. I know I was making vitamin D. You kind of feel it. It's just that spring in your step after doing this stuff. But I wasn't even really getting much of a tan off of it. It's a very different deal versus using a tanning booth to get bronzed up and turn yourself into a leather handbag, so not advocating for that. That seems like something that is just totally low-hanging fruit.

Nicki: Accessible.

Robb: Accessible. I think I got signed up for this. It's like a chain tanning booth deal and it's like \$18 a month or something and I can go unlimited. I would at least give it, if you live in a sunny area, by hook or by crook, get outside. If you have a tendency to fall asleep and nap, then set an alarm-

Nicki: Set an alarm so you don't burn.

Robb: ... so you don't burn yourself. That would be what I would recommend. Just all the mechanisms, everything that we know about the benefits of sunlight and then specifically here with addressing the Epstein-Barr virus by modulating that T-cell response seems really smart.

Nicki: Sheryl, give that a shot and then let us know.

Robb: Please do.

Nicki: Write back in and let us know if that helps at all. Okay. Our final question this week is from Jace on masks. Jace says, "Hello Robb and Nicki. Masks are now mandatory in my state of Kansas. I'm a very health-conscious person. I'm extremely active and I highly value exercise, diet, sleep, and play in my life. I credit my lifestyle with maintaining a strong immune system. I can't remember falling ill in over a decade or more. I find evidence of mask efficacy to be dubious at best. I do, however, understand the can't-hurt attitude and I'm mostly okay with the mandate to a point."

Nicki: "But I'm getting increasingly frustrated with people I personally know who are on social media shaming and calling names to people who are questioning the mandate, sharing articles, highlighting mask efficacy science, et cetera. These are people who I know for certain have spent years either making terrible health decisions, smokers, heavy drinkers, overweight and/or sedentary or, at best, not valuing things like diet, exercise, mental wellbeing, et cetera. Although I'm mostly quiet and humble about my lifestyle, some of these folks consider me and my health habits to be overzealous."

Nicki: "So now here we are during a pandemic having folks like this calling out others for noncompliance and/or questioning mandatory mask-wearing, like they're all of a sudden all-knowing health experts when before all of this they couldn't be arsed--"

Robb: Arsed.

Nicki: "They couldn't be arsed for a year's worth of days to get up and move their asses on a regular basis. I'm seeing #wearthedamnmask. When this is all over, would it be prudent for me to post #putdownthedadnsoda or #runthedamnmile day in and day out ad nauseum? Do you see where I'm going with this? Are they being loudmouthed hypocrites who need to be called out or am I being a self-righteous A-hole? Maybe both. I'd love to hear your take on this."

Robb: This is another one that we debated on whether or not to include this.

Nicki: Contentious times here.

Robb: Do you have some thoughts on this?

Nicki: I feel like I totally understand where Jace is coming from because I don't know that we mentioned this in a previous episode, but we mentioned it ... I had brought this up at dinner the other day. We went up to some friends in Austin for dinner. There's a guy that we do jiu-jitsu with and after class one day we were just chit chatting and he mentioned that one of his guilty pleasures is reading advice columns, which I didn't even know-

Robb: It was a thing, yeah.

Nicki: ... columns like Ann Landers are still a thing. I think there's some different ones. But he was saying there was a prevalence of questions along the lines of, "My boyfriend and I were shopping and I saw him pull his mask down over his nose for 10 seconds. Should I break up with him?" Or, "My sister doesn't wear her mask all the time and how do I ..." This has become a thing in our society where you could have an otherwise perfectly fine relationship and then the mask and whether or not someone is 100% compliant somehow supersedes every other character quality about the person and your relatability to that other person.

Nicki: It's crazy. We talked about this in the news article that led into this is obviously in the beginning we were trying to flatten the curve and we're wearing masks and trying not to overwhelm the hospitals. Now it has become a thing where nobody can get coronavirus. I think you shared this on Instagram, but there was a city council member somewhere in Tennessee-

Robb: Tennessee.

Nicki: ... that was basically saying that people who don't wear masks should be convicted of murder or attempted murder.

Robb: The point that I made was so someone not wearing a mask would be charged with a more severe crime than if someone raped a child. I was having a discussion with somebody and they were kind of pushing back. She mentioned that it's like, "Well, I have a kid and I'm afraid of what could happen." I'm like, "So you understand that the charges brought against a person doing this would be more severe than if somebody kidnapped and raped your child?" She was like, "Oh okay." This is where just being able to step back and have a little bit of critical thinking around this and this is where it gets a little bit conspiracy theory feeling even for me.

Robb: But this so feels like a divide and conquer move. What's crazy about it, and I think we've talked about this, but we talk about this shit all the time.

Nicki: It's hard to know what we said in an episode or what we said in a private conversation or somewhere else.

Robb: But the absolute lack of any standards is one of the ... First we were told, "Don't wear masks. They don't work." And then we were later told kind of or it leaked out that, "Well, we were short on PPE and so we didn't want there to be a run on that." Instead of treating everybody like adults and saying, "Hey, masks might be important, but they're particularly important for our frontline people so do not make a run on this," and they could have easily made a dictate that specific types of PPE were available for only these categories of people. But instead, we were lied to.

Robb: And then they changed the story. They changed the story and they changed the story. Nicki and I were just watching a video last night about the story changing. It's very interesting how that goes. What this story changing and goalpost moving does is it creates dissent and mistrust.

Nicki: And putting people basically in groups. You've got the mask group and then the anti-mask group. One is inherently good and one is inherently bad.

Robb: Well, it started ramping up from there. Well, maybe you need a face shield. Maybe you need a mask and goggles.

Nicki: And goggles.

Robb: Now you're going to need a vaccination and a mask and goggles and a full-body condom and-

Nicki: Yeah, because even after the vaccine apparently we're still going to need to wear masks. Now also you need to wear masks even if you're doing a remote Zoom meeting for your organization. There are companies that are saying you need to show that you set the right example by wearing your mask even in a Zoom call when you're in your own office at home.

Robb: None of this makes sense. There are going to be some people that are really cranky. They're like, "Fuck you guys. You're just anti-mask." I'm not. But these things are really inconsistent. This is the thing that got me kicked out of Sunday school within minutes of getting dropped off every fucking time my parents took me there is I'm really good at ferreting out inconsistencies. You want to give me a list of doctrine and I start digging in and I will ask questions around it. This is why I got kicked out of fucking CrossFit. We got

paid really, really well in CrossFit and I couldn't keep my goddamn mouth shut because there were fucking inconsistencies in this thing.

Robb: There are inconsistencies here. There are people like me, like us, that when you encounter an inconsistency, it's like having a loose tooth and you just keep fucking and fiddling with it. You can't leave that goddamn thing alone. So for the folks that are really high and mighty and righteous around the mask-wearing, I would put back to you, we need to find a goddamn consistent message around this. One of the most difficult features for me is the lack of standards on what constitutes a mask. Alyssa Milano who is as high and mighty and righteous around this shit as you can find, she was wearing a knit mask.

Robb: It was crocheted. It had holes big enough to stick a straw through. It's stuff like that that is as a scientist and as a hopefully critically thinking person, I'm just like, "Fuck you. This is bullshit."

Nicki: If it really, really mattered you could only buy ... It would be N-95s for all now that there's enough and it's not going for-

Robb: Or triple wool-

Nicki: If your nose isn't covered, if it really mattered, there would be some standards.

Robb: There would be some standards here. I've poked around at both state and local levels for what the standards are for hairnets as a food service person and there are delineated standards. Think about, again, for the people who are going to get butt hurt about this, there are fucking standards for what constitutes a hairnet and what doesn't for making sandwiches so that your beard hair and your fucking dome hair doesn't end up in the food. But there are no goddamn standards on these masks. But yet these masks are Obi-Wan. It's, oh no. The only hope is a vaccine in a class of virus that has never had a vaccine and under a timeline that is faster than-

Nicki: But let's bring it back to Jace's question, because it's actually a really good one. If these people who haven't taken care of themselves, they don't eat right, they don't exercise, it's a valid point because they disproportionately are going to be the ones ... We've had all this research done that people with comorbidities, not metabolically healthy are at greater risk of having more complications from COVID virus. So they're going to be the ones that end up hospitalized or in the ICU or costing our healthcare system more.

Robb: And that is true whether there was COVID or not. This is a massive double standard, that we can shame people for not wearing a mask or questioning that-

Nicki: But you can't-

Robb: ... but you cannot just say, "Hey man, you might need to lose some weight. You might need to get metabolically healthy." So this is the Bret Weinstein, Hilbert's problems for social justice warriors. You need to try to operate a life in a society with as few contradictions as possible. If you have a deeper problem of poor metabolic health underlying the whole population and you can't address that but you can address the thing that can be monitored by closed-circuit governmental TV and the media whether or not you're wearing a mask, there is a problem there.

Robb: I think what befuddles people is they get so wrapped up in mask or no mask, they don't even realize that there's a much bigger discussion going on here. So I actually agree with

what Jace is saying. If this is the game we're going to play, if we're going to get into this super authoritarian deal around mask-wearing, then we're going to get into a real authoritarian deal about how the fuck you live your life and it's going to start with ... This is, again, where the slippery slope begins. "What are you eating, comrade?" "Well, I'm eating a carnivore diet because it put my ulcerative colitis into remission."

Robb: No, you're not eating that anymore because the government has said that a plant-based diet is the most healthy thing for you. So we're going to tax meat super high. We'll socially shame you. This is-

Nicki: For eating animals.

Robb: So this is the thing that it goes to. So if we can find ways of incentivizing people to do good behavior instead of Draconian dictates, then you tend to get more buy-in. You tend to not get pushback. That is where, for me, and again, maybe we're just nut cases. Maybe we need to just shuffle off of doing any of this stuff. Apparently, we're dangerous enough that Google had to trim our wings a year and a half ago. We'll probably get them trimmed again. But there's a lot of slippery slopes in this stuff. It's super concerning.

Robb: Post-9/11 I had a bunch of concerns around the way that TSA went. The first time I had to fly after 9/11 and I saw them dragging an old woman out of a wheelchair to move her through a metal detector. I was like, "The Fourth Amendment's done. We're fucked." It's only gotten worse since then.

Nicki: Now there's talk of disinfection booths when you fly.

Robb: Now there's talk of disinfection booths when you fly. Is that going to be UV exposure? Is that going to be chemical exposure? Are you going to be able to-

Nicki: Opt out if you're pregnant or if you've got issues?

Robb: Maybe your opt-out is that you don't get to travel. To me, this is-

Nicki: It all sounds crazy. Six months ago it would have sounded even crazier, but just watching what has happened over the last six months, it's not that farfetched.

Robb: It is not crazy. Yeah. It's not. So again, for the folks who are maybe like, "Robb and Nicki are jerks. You're anti." We are not anti-mask, but we are pro shit making sense and inconsistency and thought, some, just a moment's thought about what the unintended consequences are of actions like this. This thing has been so politicized and so masterfully spun up as a divisive tool. I think that that's really why we're unlikely to get anywhere with this because it's not about the masks. It's not about the nail.

Nicki: We should put a link to the-

Robb: We should put a-

Nicki: If you haven't watched It's Not About The Nail, Robb actually has a chapter titled in Wired to Eat that It's Not About The Food.

Robb: We had somebody at jiu-jitsu the other day-

Nicki: Somebody at the gym was like, "That was a really good one."

- Robb:** They're like, "I got that."
- Nicki:** If you haven't seen It's Not About The Nail, we're going to put a link to that in the show notes and you should watch it.
- Robb:** It's very misogynist though.
- Nicki:** Oh God. We can't have any humor anymore. This is another part of it.
- Robb:** This is another part of it.
- Nicki:** Humor is going down the drain.
- Robb:** This is another part of it. You know what? I'm just so fucking tired of dancing around all this stuff. It's just-
- Nicki:** We should probably close our podcast then, because you're going to get in trouble.
- Robb:** We will get in trouble, but it's more I'm going to go down like Slim Pickens riding the bomb at the end of Dr. Strangelove. I'm just kind of fucking over it. But this is another one of the things that when you look at what has happened under no joke totalitarianism, humor is shut down and censored. Look at what quarters we're seeing that you can't make a fucking joke about anything. Again, it's not even really about that. It is about the divisiveness that occurs around those actions. This is the thing that makes me a little crazy and definitely very frustrated is that, in my opinion ... It's not that you need to agree with me on every point or really any point.
- Robb:** But if we can't recognize that there's not a bigger story here that's being played out, whether it's centrally organized or it's just a really unfortunate set of circumstances, this just so feels like a divide and conquer or a divide and destroy. It's not even conquer. It's just fucking burn it all down. It starts with things as banal as do you wear a mask or not. Things like seat belts, people who advocate for self-determination and personal accountability and freedom and stuff like that, when seat belts were originally mandated, there was some significant pushback and there was some concern that this was kind of opening Pandora's box and whatnot. But seat belts have fucking standards. There are detailed, specific standards-
- Nicki:** Car seats too.
- Robb:** Car seats, which that's kind of a racket too in its own way. But there are very specific standards which I'm always nervous around leaning into consensus and stuff like that. But this stuff has been fairly strongly-
- Nicki:** Well, it's easy to test seat belts with crash test dummies.
- Robb:** Exactly.
- Nicki:** It's very tangible versus dietary ... I think you were going, it's hard to have consensus with other things. But those things, it's not as-
- Robb:** No. I was making the same point, just a different direction. But it's physics and engineering that have arrived at these things largely. There's some politicization too. But it's a science-based place that these things have arrived at. We don't have that here and that's all I'm saying. If we're going to advocate for shit like mask-wearing, then let's have

some standards and let's adhere to those standards. Let's make the standards actually based on some research and evidence. There was a piece recently that was talking about different masks and then it turned out that it was absolute shit science. Yeah. I don't know.

Nicki: We could go here forever.

Robb: We could go on and on with this stuff. Yeah. Okay, we're going to delete this one and start over.

Nicki: No. Well, Jace-

Robb: But we would love to hear from you guys.

Nicki: Jace, that was-

Robb: Yeah, it was a good question.

Nicki: That was a good question.

Robb: Again, we kind of waffled on whether or not to tackle this. But this does dig into deeper things like, why are we not then ... If we're going to, aye, aye, captain around these things that we're going to save lives and save money, then we need to fucking do this on diet and health and adherence to some healthier dietary practice, period. The danger there-

Nicki: But because there's no standards on masks, we don't want standards on the diet because they're going to push us all vegan. That's the problem. There's no consensus around the diet topic. I don't see one coming.

Robb: You could at least make a case around ... No, you're right. You're right.

Nicki: Could make a case around sugar.

Robb: Around sugar or just basically whole unprocessed food. But it's a slippery fish, for sure.

Nicki: Well, that was a good one to end on, if people are still here.

Robb: Might be the last show we ever do.

Nicki: If people are still here, they might have tuned out already. But thanks, everyone, for joining us. Remember to check out our show sponsor, BLUBlox for your blue light blocking glasses. Go to blublox.com. That's B-L-U-B-L-O-X .com/robb15 and use code robb15, R-O-B-B-1-5 for 15% off your order. They do offer free shipping globally. Check them out. Share this episode if there's something in the show that you enjoyed or it touched you, feel free to share with your friends and family.

Robb: Or if you feel like our heads need to be on a pike, then certainly share it with that other tribe that you're a part of and then you guys can all-

Nicki: Cancel us.

Robb: ... do cancel Robb and Nicki. Yeah.

Nicki: Anyway, hope you all have a fabulous day.

Robb: Bye, everybody.

Nicki: See you next time.