

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 1 million people liberate themselves from the sick care system. You're listening to the Healthy Rebellion Radio. The contents of this show are for entertainment and educational purposes only. Nothing in this podcast should be considered medical advice. Please consult your licensed and credentialed functional medicine practitioner before embarking on any health, dietary or fitness change. Warning, when Robb gets passionate, he's been known to use the occasional expletive. If foul language is not your thing, if it gets your britches in a bunch, well, there's always Disney Plus.

robb: Welcome back friends, neighbors, loved ones.

nicki: Hello, hello. This is Episode 155 of the Healthy Rebellion Radio. Thank you, guys, for joining us. We had a nice long weekend.

robb: Ish.

nicki: Ish. No, actually it was.

robb: Felt long because...

nicki: Well, it started off, it ended okay too, but it started off wonderful. As you know, we went to Missoula this weekend for [inaudible 00:01:13], an ankle pick seminar. And the girls, we dropped them off with our friends who have Go Roam Free, the Bison Ranch, they have a young daughter who's the same age as our girls, more or less and so they stayed there and Robb and I got to go have a night away in the big city of Missoula.

robb: Which did feel like a big city. I'm definitely a country mouse now.

nicki: It did kind of feel, they had some sort of comic-con thing going on and so lots of people in costumes walking around. Yeah, but seminar was great. I did learn how to apply some wrist locks. Robb thwarts me at every turn, all my attempts end up thwarted.

robb: Lesser mortals, you'll do just fine.

nicki: I tried it on Shawn, one of the guys at the gym, but our hands were sweaty and so I couldn't...

robb: Shawn's a fucking gorilla too so that's not the first person to try to wrist lock.

nicki: My hands are small, that's true.

robb: Yeah.

nicki: Anyway, that was great. Next day we head back and pick up the girls and lo and behold, Zoey found, she was with the horses and she was bringing, brown horse is one of the horses' names, bringing brown horse back into the barn, and sees this baby bird on the floor that apparently had fallen out of its nest. And so of course she picks it up and Zoey's our animal gal. So she picks it up and is holding it and manages to tie brown horse off and goes into the house. And anyway, when we arrive Brittany was like, "I'm sorry." So Zoey, she wants to try to save this little bird and it turns out it's a Starling, which I didn't really know anything about Starlings, but now I know quite a bit about starlings. They are an invasive species, a non-native species.

robb: Brought here in the 1890s, 100 of them were dumped in New York, Central Park.

nicki: Central Park in New York by some dude or a group of people that thought that all the birds that have ever been mentioned in Shakespeare's plays should be brought to North America. And Starlings apparently were mentioned in some act of Henry the Sixth or something like that. So now those 100 starlings that got dropped off in Central Park, there are over...

robb: Hundreds of millions.

nicki: 200 million of them now. And they are very destructive to fields.

robb: They outcompete the local songbirds.

nicki: Songbirds and steal their nests and all kinds of things. And so they're actually legal to humanely kill. People will shoot them people. If you look on Amazon for Starling, because I was like, "Oh, maybe there's a book about starlings," and it's all about starling traps, starling poisons.

robb: Starling side.

nicki: Starling aside or something like that. It's like, "How do you kill these things?" Because they're such a pest in the bird world. So we have one and there's no wildlife rehabbers that will take them because they're an invasive species. Normally people just kill them and apparently you can't even release it because we have a single one. And so it's imprinting on humans. If she had found a clutch of them, then there's ways to barely handle them and feed them and then you can release them all into the wild. But because it is only imprinting on humans, it can't be released because it would be killed. It doesn't know how to forage it, wouldn't know how to sing its song, and all these things.

robb: It was very much Lando Calrissian weekend for me in which this deal keeps getting worse all the time because Zoey was, the damn thing looked nearly dead because it was cold and it was found next to another nest mate that was already dead. And so I was like, "Okay, we'll give it a shot."

nicki: We were like, "Okay, but understand the odds of this thing surviving are like zero."

robb: Low.

nicki: Yeah, "Very, very low. So be prepared to deal with that." And it's now day five.

robb: And I'll say to our credit too, I got in and started researching. Nikki got in and started researching. We bought some baby chick based electrolytes and probiotics. And then it was recommended to use cat food with apple sauce and eggshells.

nicki: And a hard-boiled egg. We found this wonderful website called Starling Talk, which if you ever find a baby Starling and you need to raise one, Starling Talk has all all the things.

robb: All the answers.

nicki: All the things. So we're feeding it this mashed up cat food, apple sauce, hard boil egg recipe.

robb: But when I agreed to let this bird come home, I was under the assumption that it was a 90% likelihood it wasn't going to live. If it did live, then we would raise it up and release it. And then lo and behold, you can't legally release it and then I can't morally release it because the God damn thing is imprinting on my daughter and so then you're basically just signing its death warrant. And then once she learned that, then I have absolutely no leverage to get rid of the thing. And it gets better. They can live up to 22 years.

nicki: They can live up to 20 years in captivity. And they can talk. They can talk like a parrot. There's videos of starlings, they can mimic. They're really good at mimicry so they can mimic sounds and they can say things. So we have this. And here we are planning like, "Okay, we're going to do this over the summer and we're going to go do this." And this thing needs to be fed every 45 minutes. Thankfully not at night because that would've been a complete deal breaker, but during the day waking hours, it needs to be fed every 45 minutes. So it's a full-time job.

robb: Which Zoey has done a very good job.

nicki: She's done a great job.

robb: She has a real knack with animals and a clear passion for it, which is part of the reason why I signed off on this initially.

nicki: I told her that. I was like, "If this was Sagan or your cousin or any other kid that just found a bird, we wouldn't have kept it." But because she watches, she is

really knowledgeable. She wanted a parrot for the longest time. She's wanted a bird for a long time and we're like, "Eh, you've got a puppy. You don't need a bird." But now she has a bird.

robb: And the dog is forgotten now. It's like, "What dog?"

nicki: So now the dog is my dog. Anyway, that was our fun weekend.

robb: Personal problems, but interesting. Oh, do you want to mention the?

nicki: Well, we were doing our cardio this morning and because it's not freezing out, we have the garage doors open, and we're rowing. We have kind of a steep driveway so we can run up the driveway for part of it, kind of doing mixed modal stuff. And I noticed there was this huge pile of goose poop on the driveway. And so then Griz comes around the corner and when we run up the hill, he'll run with us and then walk down. Then he discovered the pile of goose poop and decided, "Oh, this looks like something I really need to just roll in." And so his whole back was coated in greenish brown goose sludge.

robb: He did a great job of removing the patch, the giant patch off the [inaudible 00:08:37].

nicki: Oh yeah. He cleaned the driveway for us. So anyway. Robb, what's your saying?

robb: No good deed goes unpunished.

nicki: Not that one. What's the upside of pet ownership?

robb: Oh, what's the upside of pet ownership? Yep. I am still at a complete loss what that is.

nicki: Yeah. Okay. I guess we could move on from our animal, our zoo, that we are slowly [inaudible 00:09:01].

robb: Menagerie.

nicki: Our menagerie. Yep.

robb: A zoo implies that there's like some organization and a plan, menagerie sounds much more like mobile gypsy.

nicki: You know what? It's reminding me of this book, and I can't remember the author, but it's a well known author that folks will have heard of. But there's a book called Tarantula in My Purse, and this woman, it's all these stories of rescued animals that this woman and her kids have brought into their house.

robb: Oh, I remember this.

nicki: From birds to turtles to fish to raccoons. And they lived out in the country somewhere I think in upstate New York and her kids would be constantly finding these wounded or abandoned, orphaned animals. So we're not...

robb: Far off of that.

nicki: We're not far off of that at this point. Okay, well shifting gears?

robb: Sure.

nicki: Okay. News topic today.

robb: So I think, like I've mentioned, I don't know about try, but I've just kind of stepped away from the bulk of things Covid. There's still coffee and Covid and the [inaudible 00:10:22] and Robert Malone and a lot of people still.

nicki: [inaudible 00:10:25].

robb: [inaudible 00:10:26] is still digging in and doing good work on this stuff, but it just reached a point where it was kind of grinding and it's like, "Yeah, okay, this is a disaster. I'm not really too sure what more to say." But interesting things are emerging, like the actuarial tables and the excess death stuff. And I don't have this specifically in the news piece, but there's a paper that makes the case that for people under 50, Covid was a non-thing. Just statistically speaking. And there will be people, "This person died." I know somebody 49 that died from Covid, but she was a pack a day smoker for nearly 30 years and 45 pounds overweight and hard drinker and just kind of fit the demographic for the people under that age.

nicki: That were at more higher risk.

robb: At higher risk. And then mixed into that, there was lots of speculation, particularly I think from the [inaudible 00:11:30], talking about the potential that the vaccination process was creating immune escape. And this was alluded to really early on, we were still in Texas the first time that the antibody dependent enhancement and original antigenic sin got on my radar. And I started digging into more deeply the failures of the SARS1 and MERS vaccines, which both of those were heroically attempted vaccine schedules and both of them were abandoned because it ended up causing more damage than the original disease. It ended up killing virtually all the animals.

So the [inaudible 00:12:21] has done numerous pieces talking about the possibility that there was this signal that suggested that upon vaccination and upon subsequent vaccinations, boosters, one could expect to be more prone to contracting and succumbing to Covid than previously thought. So now we have a paper that came out of the Cleveland Clinic IGG4 antibodies induced by repeated vaccination may generate immune tolerance to the SARS COV-2 spike protein.

And it's an easy read even if you don't have a good immunology background, it's pretty accessible. But just pulling from part of the abstract, "However, emerging evidence suggests that the reported increases in IGG4 levels detected after repeated vaccination with the mRNA vaccines may not be a protective mechanism, rather it constitutes an immune tolerance mechanism to the spike protein that could promote unopposed SARS COV-2 infection and replication by suppressing natural antiviral responses. Increased IGG4 synthesis due to repeated mRNA vaccination with high antigen concentrations may also cause autoimmune disease and promote cancer growth and autoimmune myocarditis in susceptible individuals."

I don't even know what to say about this. Now it's one paper so you can't hang the totality of this story on this. But even a little bit of what I read about this paper, this was a very difficult to complete research project for these folks because it was difficult to obtain the data necessary to even suss this out because of the way that the data sets and information has been purposefully tarnished and made difficult to be able to do these compare and contrast things which are cornerstones of science. You always want a control unless you want the whole population with it and you don't want a control left so that you can do a compare and contrast. But there have been numerous fringe pieces that made the case that there was a possible signal lurking with regards to the immune escape and the increased susceptibility to Covid due to vaccination and subsequent vaccination. And let's remind everybody too, what was the fucking gold standard with the reason why we were told to do these vaccinations? Do you remember?

nicki: So you don't kill any [inaudible 00:15:09].

robb: Well that, but what was the lab standard that everybody just had a fucking hard on for? It was antibody levels. And lots of smart people said you can't hang your whole story on just antibody levels. This is playing to something that's relatively easy to track and is completely misleading. And oh, by the way, there's this immune escape process. We learned about this really early and there was fucking nothing done about this. You were canceled and ridiculed.

nicki: You were a conspiracy theorist.

robb: I'm going to name him, Lincoln from...

nicki: Brigham.

robb: Brigham from the old CrossFit days. I was just mentioning something related to a piece that [inaudible 00:16:00] had posted and he popped in there and he's like, "Well, people are cowards if they don't get the vaccine." And subsequently, this was probably a year ago now, and every once in a while I'll pop up. I'm like, "Lincoln, do you still hold this position that people are cowards or was there some reasonable doubt associated with one that every other class of vaccine in these viruses, the SARS one, the Mers, failed and didn't fail small,

failed catastrophically." This is a completely brand new delivery system. The lipid nanoparticles are a novel delivery system, the spike protein being the thing that we're coding for ends up being both toxic and the primary thing that we're going for, it doesn't say, on and on and on. And now there was some early discussion, the myocarditis thing and the early deaths associated with cardiac damage now seems to be all but certain. And that just seems to be getting worse and worse as time goes along. And then there seemed to be this increased autoimmune signal and an increased cancer signal.

nicki: You'd see lots of people mentioning, people that had been cancer free for some period of time getting vaccinated and then seeing a resurgence of a cancer that had been in remission for seven years. So I remember seeing many comments to that effect.

robb: And all of that could be circumstance.

nicki: Right. But now that you have...

robb: We have a proposed mechanism.

nicki: With a proposed mechanism for this in this paper...

robb: And I forget who it was, but there was some other outfit, it was a hospital system that got in a fair amount of trouble because they were shuffling cancer rates or cancer deaths into a different category. They were trying to hide the increase in either cancer rates or, I can't remember, this is, again, where part of me just stuck my head in the sand and I just couldn't deal with this stuff anymore because I get so livid I'm almost apoplectic. I can't function day to day.

nicki: It's so funny, I was reading an article, maybe it was in the Free Press, I can't remember, but it was a man that was talking about Robert F. Kennedy Jr. and Marianne Williamson, both of them being presidential candidates and he was talking about RFK and his anti-vax stance and his position that we have significantly more vaccines on the childhood vaccine schedule than we did in the 1980s and then also with Covid. And the author, his position was basically saying that RFK's position on Covid was completely disproven because clearly the vaccines work and they saved these deaths and all this stuff. So the mainstream is still pushing that narrative, clearly. But then you have stuff like this and I think we're only going to see more studies and more data with the all cause mortality stuff coming out, showing that maybe a person like RFK was actually right.

He was right to question it at least, and he got completely slammed and he is being slammed in his run to be the Democratic presidential candidate because of his vaccine views. But I don't know, it's interesting times. I feel like the divisiveness is still there. I am not sure, no, actually we know several people who were vaccinated who thought that we're on team get the vaccine who have since deeply regretted it and are open to these types of conversations. But there's still, at least in the media, the perception is, it's a hard line it was still the best thing,

there's nothing wrong with them. If you say there was, then you're a conspiracy theorist, that's still going around.

robb: Yeah. And it makes me angry. And I don't know what to do about it. I pop my head up every once in a while, something like this. I think it is one of these things that as onerous as it is, and as much as I would like to just freak out, you can't freak out. You still need to maintain some degree of decorum because the people waffling in this story within the mass psychosis formation, mass formation psychosis, there's going to be that cross section of people that literally are unreachable. And maybe that's me. I guess the flip side of that, and maybe I'm the one on that and I'm unreachable, but I don't think so. I think that that is siding with us pretty strongly.

But there is a cross section of people that things just aren't adding up, they maybe know people who were doing okay, got vaccinated, suddenly were not doing okay, got cancer. We know one person that got the vaccine and two boosters and a week, week and a half after the second booster ended up with this variety of breast cancer that her oncologist said that he had only seen two or three cases like that in the previous 20 years, all told. And then he had seen something like 18 or 20 cases like it in the last six months. Again, anecdotal and "Oh, conspiracy."

nicki: One practitioner.

robb: And all that. And it's like, "Well, fuckers, let's get in and look at that and let's not make it difficult to access the information and let's really see if there is a signal there." And this is something that as the years go by, if there is something to this increased rate of autoimmune disease, increased rates of myocarditis and cancer, the actuarial tables are really, really good on this. These life insurance companies in particular, if they know your age and ethnicity, and I became aware recently that when you apply for life insurance they have this way, the insurance companies, once they get your social security number, they're able to access a database that basically lists all of the medications you've ever had in your life. And then based off of the rates of medication usage and the types of medication usage, they're able to really dial in when you're going to die. They've got remarkable granularity.

And somebody was talking about this, this is another one of these things that I feel like I should have bookmarked and put into a blog post or maybe included here, but they're making the case the insurance folks are sitting on a database of predictive mortality that is really stunning that could be incredibly valuable to get in and try to push those numbers out if there was some transparency to that. But it's not.

Anyway, that's going to be an interesting thing because the people footing the bill for both life insurance and different health insurance costs in this story, I don't know when or where the incentives become misaligned. I guess if we're just printing money and buying people off with funny money, then maybe this



never pops up, but it's just another chink in this system that lack of belief in it, lack of credibility. And I don't know what my point is now, I'm just kind of rambling. But it's going to be interesting if it goes forward. But I am fairly steadfast in my position that we don't forget and if somebody legitimately asked for forgiveness for them being dumb and wrong, I'm good with that, but there needs to be some sincerity to it.

nicki: But there's no like, "Oh, you know. We didn't know."

robb: There's no Great Glassman apologies here.

nicki: Yeah, "I didn't really mean that you shouldn't be allowed in the hospital because you chose not to get the vaccine."

robb: I still think healthcare is right. Yeah.

nicki: Yeah.

robb: Anyway, check that out. Share it, dig into it. It'll be interesting to see what the counterpoints are there, but there's a growing cross section of peer reviewed material that paints a pretty grim picture here. And I think there was just another thing this morning that the WHO came out with this thing that the next pandemic is going to be deadlier and bigger and it's kind of like, "Well, maybe."

nicki: Yeah, it's interesting. We were talking also about there's, I'm sure folks have seen articles that state that if you were put on a ventilator, then your chances of dying were like 90%. Most of the people that died who were hospitalized, it was because they were put on a mechanical ventilator. And I was telling Robb this morning, it seems like if your loved one died from Covid and they were hospitalized and they were put on a ventilator... I was asking him, do the people need to pay those hospital bills? The government didn't pay for all the Covid patients, so your loved one died, they were put on a ventilator, which now looks like is what actually killed your person, and then you probably have hundreds of thousands of dollars of medical bills to pay for the treatment that killed your person. I don't know. My mind went there this morning.

robb: It's interesting. And I don't know. Clearly some people are going to have insurance stuff, other people are uninsured and going to have problems with that. I do remember, again, really early, we were still in Texas for this, when this disheveled, young...

nicki: Exhausted doctor.

robb: Exhausted ER doctor was like, "We can't put people on ventilators." And you'll get this stuff, a degree of pass. Which is that initially it was thought that this was a respiratory issue primarily, and it ended up not really being a respiratory issue. And the mechanical ventilation ended up just damaging and killing people it looks like. But this doctor very early on was like, "We need to

stop and we need to study this because when I put people on ventilators, they don't get off." And we were hearing stories about, "Oh, we're out of ventilators. So we put them in a prone position and those people recovered."

And I get more and more down the conspiracy theory track as time goes on, because if it was really a desire to help people, then there would've been this hair on fire desire by Tony Fauci and NIAID and all associated entities. "We have a signal there, we have a doctor making this claim. Here's a study. Five different hospitals, here's the protocol. It starts on Monday, go." And in three weeks we've got data on this shit. And instead it was suppressed and harangued.

nicki: Yeah. It's easy to be over it, but I agree, this is not something to forget because we don't want it to happen again so we've got to talk about it.

robb: And the powers that be are telling us emphatically that it's going to happen again. So we need our ducks in a row for if and when it happens again.

nicki: What do those ducks look like though?

robb: Yeah, not to derail too much, we have very little trust in public health at this point. So that's a big deal. Maybe to our detriment, this go around. I don't know.

nicki: Right. I've heard people mention that, that the trust is so damaged, if there was something truly dangerous, would people have a clear head to try to distinguish if what they're being told is true or if there's some other agenda behind it and maybe the next vaccine is the only thing that will save you, but are people going to be so distrustful of it that they don't take it and then they perish? But I don't know. I feel like most people are pretty good at... I guess it depends on where you get your information. I guess it's challenging because we get bombarded by so many different directions and this influencer and that person and the CDC and CBC and NBC and [inaudible 00:29:28].

robb: Yeah. I don't know. I think at a minimum just we need some bastions of people that are asking these questions. It's like, okay, so we make an assumption again.

nicki: I think that's the thing. If questions are being squashed or censored, then that's a signal that there's something there that whatever the powers that be don't want us to uncover. And so then that's where you dig deeper. But if it's all open and all the questions are valid and people can have these kinds of conversations, then okay. But if there's things that are being deliberately suppressed, then to me that's a red flag that there's something there.

robb: What was the piece? I'm sorry, we're turning this whole show into a Covid deal, but it was either a written piece or a podcast, but they were talking about the SARS-1, oh, it wasn't Peter McCullough, I'm forgetting who it was, but the lawyer, the dude with the bow tie.

nicki: David Martin.

robb: Yeah, David Martin. He was making the case that there were all these patents on this stuff and that it was understood that both ivermectin and hydroxychloroquine were indeed efficacious for these things even though we're told time and again that these things were boondoggles. And even on the Ivermectin piece, it is a drug that has had more safety profile data than almost any drug on the planet.

nicki: Right. So even if it doesn't work, why refuse it to people?

robb: At a minimum...

nicki: It's safe. Even if it's going to do a damn thing...

robb: It's not going to help, it's not going to hurt.

nicki: But why prevent access...

robb: Why intervene?

nicki: ...to a drug that's completely safe, it's been used for decades and decades in all populations. So why intervene?

robb: Yeah.

nicki: That makes no sense.

robb: It really doesn't.

nicki: Except for it wasn't under patent and you didn't make any money.

robb: Well, yeah. Anyway.

nicki: We should move on.

robb: Not really where I intended the show to go, but this paper definitely got me fired up and cranky.

nicki: A little bit fired up.

robb: Yeah.

nicki: Okay, well let's move on then.

robb: Okay.

nicki: All right. The Healthy Rebellion Radio is sponsored by our Salty AF electrolyte company LMNT. And as we mentioned last week, it's officially

grapefruit season, which means there's another awesome LMNT flavor that you can add into your rotation to keep you hydrated, energized, and ready to perform at your best. Diana Rogers shared a recipe in her newsletter this past week for a salty grapefruit limeade, which I tried last night and it was amazing. Really good, super easy. So I thought I'd share it here. It's one packet of grapefruit salt, two juicy limes, about a quarter cup of lime juice, and sparkling water. She mentioned using a lime flavored sparkling water like Topo Chico, but I just used regular sparkling water and it turned out just fine. And you add the grapefruit salt to the lime juice in a big mason jar, you shake, mix it well, then add ice and then slowly add the sparkling water. And to make sure that you don't fizz it over the top like a volcano, so you slowly add the water and it is so good, guys. I'll link.

robb: And Nikki really did do it because I walked in and there were lime pieces all over the kitchen.

nicki: Not all over the kitchen, on the cutting board next to the [inaudible 00:33:00].

robb: Which is all over the kitchen.

nicki: Squeeze thing. I will put a link to Diana's recipe in the show notes. It's the perfect, refreshing afternoon drink or summer mocktail. I think next time I'm going to try adding some fresh mint, maybe muddling that in there because I think that would be just sort of the extra layer of yum. But anyway, again, I'll put that link in the show notes. Definitely something to try. You can grab your grapefruit salt or any of our LMNT flavors at [drinkLMNT.com/Robb](http://drinkLMNT.com/Robb). That's drink [LMNT.com/Robb](http://LMNT.com/Robb).

We're going to do two questions today. The first one is from Anne on a peel. She says, "Hi, Robb and Nikki, I have listened to you since the beginning and I've been a fan of Robb since he was with Lauren Cordain. I have a question that is really bothering me. I try my hardest to do everything as healthy as I can afford and can physically manage. But lately there's a lot of conversation about the new fruit and vegetable coating that's called a peel. And it's spelled A-P-E-E-L. I feel that this isn't safe, but what are you supposed to do if the only fruit and vegetables that you can find has that on it? Have you researched this at all? I'd be interested in what you have to say."

robb: So I had not heard of this. I know that there are different types of fruit and vegetable like waxes and whatnot. I remember there was this alar stuff that was put on apples ages ago and was supposed to have some health issues, but this a peel is made from fractionating different vegetable based, they're emphatic about making the point that it is not animal based. So they're definitely catering to the vegan, plant-based scene there, but it breaks down to being mono and diglycerides. And so it's this kind of waxy glycerin, it's used in food additives, it's kind of sweet, it's used in cosmetics. But at the end of the day, I think this stuff is pretty benign.

And basically what they're doing is they're trying to replicate what simple plants used initially as a moisture barrier. And they had actually kind of a pretty cool web website talking about the evolutionary biology of plants and when they first went from water to land that they needed a way to maintain their moisture and that this thing acts as effectively a moisture barrier on the one hand, keeping moisture in the plant and also to some degree an antimicrobial barrier, keeping bacteria and fungus from getting into the plant and befowling it.

nicki: Does it wash off?

robb: It should be washable, a little bit of warm water. You wouldn't necessarily need to use soap. If you use one of those plant wash surfactant things, it would come right off because these mono and diglycerides are both fat and water soluble so it could wash right off. I also honestly think that this is, I was talking to James, our CEO, and we were talking a little bit about water bottles and there's just tradeoffs with everything. And I keep threatening to do writing, but there's something that I want to do and this maybe gets a little bit far afield, but I remember as a kid every peanut butter jar, mayonnaise jar, it was always glass. Glass has pluses and minuses. It can last effectively forever. The stuff never breaks down unless you actually break it.

Arguably, interestingly, if it does break in the environment, it can be dangerous, but I remember going to different beaches, like Glass Beach in Oregon, where people had dumped garbage at the seaside back in the 1930s, 1940s and whatnot, a bunch of broken glass there, but the stuff just gets milled down and it turns back into sand basically. It looks like jewel-like sand. So glass is pretty benign for the environment, but if you're trying to optimize for minimizing fossil fuel usage, oil usage and gas, but fossil fuel usage, interestingly, plastic is made out of fossil fuels, but because it weighs such a tiny amount when you're talking about cargo container ships and trucks and moving it from point A to point B, it ends up being a real benefit to have things in plastic versus glass if you want to optimize for...

nicki: The environment?

robb: Well, I wouldn't say the environment, but for fossil fuel usage.

nicki: Got you.

robb: But then the backside is, is it good for the environment having microplastics in everything? Because when they get milled down, there are some microbes that break this stuff down not that well. I'm shocked because these things, and maybe there will be some evolutionary switch that flips and something in the ocean figures out how to use this stuff as a fuel source, and it'll probably cause this giant algal bloom and it'll suck all the oxygen out of the ocean and the whole fucking thing dies or something, but we're optimizing for minimizing fossil fuel usage, and then we're maximizing the amount of plastic use

because it is light and it's durable and it's disposable. So what's the right and wrong with this?

And I think that this is just something that people don't think about at all. They just want everything to be great and they want it immediately, right now. There's that engineering diagram, do you want it fast? Do you want it good or do you want it cheap? And you get two, you don't get three. And it's a little bit like that. And with this apeel product, I think it's probably pretty benign. I can't see how some mono and diglycerides are issues. It's been extensively studied with regards to toxicology and it's a low allergen deal. If you're okay with scooping coconut butter into your mouth, although this is different, at the end of the day I couldn't see this being that much difference from that.

And I've used glycerin in some pre and post-workout, low carb rehydration things because the glycerol backbone can recharge glycogen stores in a way that doesn't produce an insulin response. So it's kind of interesting that way. And then there is this reality that somewhere around half of the food that we produce globally gets landfilled. It just gets thrown away. Tons of it go bad. In the West, people are really spoiled in that if your tomatoes have a blemish, you won't buy it. If you don't buy it, it doesn't get used. And because of all these fucked up laws that we have...

nicki: You can't give it to, it's hard to give it to a farmer or to a food bank or any of these things. It's really hard.

robb: You can't then pass it on down the road with any of that stuff. So it gets fucking thrown away.

nicki: Some places they feed it to pigs and stuff, but it's very few.

robb: Very little, very, very little. And this is some of the point that we made in Sacred Cow, that if we had an integrated system of taking both restaurant food and out of date food from supermarkets and then putting that into the pork industry, you wouldn't need to feed any other foods to the pigs and the pigs would thrive on this stuff versus doing corn and soy and all that jive. That's a whole other different topic, but apeel, part of its mission is to minimize food waste. And I think that they're probably on to something there.

So I think it's great for Anne to be skeptical, is this stuff safe. And as far as I can tell, I think it's probably safe. And it's one of those things that there will be folks, "Oh, I just don't know." We were just talking about the loss of faith and public health. So here we go. Here's another one of these things where, "Big ag and big business is doing something shifty with our food and I don't trust it and so I'm only going to eat things that are 100% organic and no preservatives on it and everything." And it's like, "Well, okay." And at a global level, at a scaled up level, that may be really injurious the amount of waste that is produced.

And again, how much energy goes into making your tomatoes and your

strawberries and this and your that and the other, and you kind of want all that shit to make it down somebody's pie hole at some point. So, Anne, really good question. I'm glad you pinged it to us. In my opinion, a peel is safe and I think that they're probably onto something that in the grand scheme of things is good. It's minimizing food waste and there will be people that just lose their ever loving minds over this stuff because it's not "natural" or it's this or it's that. But again, we really need to start looking at these things more like an engineer and think about trade-offs.

nicki: Awesome. Our next question is from Kelly, type A personality and highish fasting glucose. 'Hi, Robb. I'm a fairly new listener, just started listening a few months ago. Thank you for your super interesting range of topics. I had a question after reading one short line in your book *Wired to Eat*. You mentioned that being type A, or wound tightly, can lead to higher readings of fasting blood sugar. I personally would describe myself as type A and always wake up with a rush of energy in the morning and an urge to get things done immediately. I also have a history of anxiety, although it's been amazingly managed with switching over to zero added sugar, zero grains, and by getting great sleep. Recently I've been experimenting with my blood sugar to get a sense of where I'm at. I test after meals, usually one and a half hours, and my blood sugar is always around 77 to 100 depending on if I went on a walk after the meal or not."

"Typically, it hovers on average at 86 to 90 postprandial, and from my understanding, the goal is to be under 120 by two hours. So these results seem great, but every time I test my fasted blood sugar around 6:00 AM, it's on the higher side of normal, 89 to 95. Could this be due to my type A personality, as you mentioned in your book? For reference, I'm a five foot five, 30 year old woman, very active. I walk about 13 to 15,000 steps per day, go to the gym four to five days per week for resistance training. I eat lower carb, don't eat grains, and I get about 130 grams of protein per day. Around 90 to 100 grams of that being from complete sources. I eat one to two servings of low sugar fruit per day. I'm not shy on eating whole fats, but I don't track, so not entirely sure on what I eat per day. But I always eat until satisfied. In the past, my triglycerides were well under 100, usually around 70 ish, and my blood pressure is about 100 over 65. Thanks for your insight. I appreciate the way you reason things out."

robb: I guess the main question is, one, I don't see these blood sugar numbers being, they're a little on the high side of normal, but really not much. This is where doing an A1C would be interesting to just kind of see what the average is over time. What's her name again?

nicki: Kelly.

robb: Kelly. Kelly sounds like a house of fire. So it sounds like her feet never stopped moving. I think she said that she walks some [inaudible 00:44:42].

nicki: 13,000 to 15,000 steps a day.

robb: So this is all stuff that is just great for that base level of metabolic health. She's probably walking before and after every single meal because of whatever work it is that she does or if this is kind of elective activity. Yeah, the wound tightness could contribute to this being a little bit on the high side, but this is also really not that high.

nicki: It's not like it's 120 when she's waking up.

robb: Yeah. So if Kelly wanted to, could check out an A1C, and track that yearly. Just have that as kind of a benchmark. But this doesn't seem out of sorts to me.

nicki: A 90 postprandial is great.

robb: Phenomenal. Yeah. Nothing about this is screaming out poor metabolic health, insulin resistance, poor glucose disposal. These I suspect are all really enviable numbers. I would just recommend for your own curiosity, maybe do an A1C to see where that is and maybe track it over time. If you want to incorporate, and it might be difficult for you to do this, some sort of a morning meditation. And for people that are really type A, that meditation where you're trying to clear your mind, it can be befuddling, and this is where the physiological sigh, Huberman has a bunch of pieces on this. Two inhales through the nose, big exhale through the mouth, setting a timer and doing that for three minutes, shocking benefits for people. So you could maybe do that if you want to start your day maybe a little more thoughtful.

nicki: I think it's great for everyone, and especially if you feel like you're wound tightly and if you're a reasonably new listener, you probably haven't heard us mention Emily Fletcher's book. What's the title of her book? It's Ziva Meditation.

robb: Stress Less [inaudible 00:46:51].

nicki: Stress Less, Accomplish More is the title. Yeah, it's a great book. She also has an online course. But for us personally, but then a lot of people in the Healthy Rebellion community have found her approach to be really, really helpful. You don't need any devices, the goal is to get to a spot where you can do this without a timer, without listening to an app, just sitting. And so I can put a link to that book in the show notes as well. It's incredibly transformative. If you haven't tried meditation before, even if you had and haven't found a type or a way to do it that has worked for you long term, I think Emily's approach could be somewhere to start.

robb: Yeah, but, Kelly, overall you sound like a brick shit house. I think you're going to outlive everybody and you sound like you're doing great. So again, check out the A1C, just if you want a little bit of a way to triangulate in on what your blood sugar really is, maybe do a little bit of meditation in the morning to just kind of start stuff off on a little bit more of an even burn instead of a rocket right out of the tube.



nicki: For sure. All right, folks, that's what we have for you for this week. Thank you for joining us for this episode. If you have any tips for raising starling fledglings, you can send them our way. Hope you all have a fabulous weekend.

robb: If you have some extra piano wire, definitely send that my way too.

nicki: If you please check out our show sponsor for all of your electrolyte needs, and you can grab your LMNT electrolytes at [drinkLMNT.com/Robb](https://drinkLMNT.com/Robb). Have a fabulous weekend. It's June. Get outside, get some sun, do something fun and active, and we'll see you next week.

robb: Bye, everybody.