

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 this 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 Rob gets passionate, he's been known to use the occasion expletive. If foul language is not your thing, if it gets your britches in a bunch well, there's always Disney Plus. Hello. Hello. Welcome back to another episode of the Healthy Rebellion Radio. This is episode 89. We're half expecting an interruption there. So, I was drawing that out.

Robb: This was feeling remarkably reminiscent of our sex life. Just wondering if like little pitter pattering feet are heading down the stairs. You're like, is that a real noise or is that ...

Nicki: We tried to start this podcast-

Robb: Three times.

Nicki: Three times in the last 10 minutes and then Sagan keeps coming in the room asking-

Robb: She had very valid questions on her math.

Nicki: Her math, yes.

Robb: Yep.

Nicki: Which we found, and I don't know if any of you other homeschool parents are finding this but money because there's not a lot of use of change. At least not the way that we did as kids. Like we were always asking our parents for, or using quarters and dimes and nickels to buy things. But now cash is used far less frequently. And so I find our kids handle change very little in real life. And so really grasping that has been a little bit of a project.

Robb: We need to play more monopoly, which also needs some coinage in it.

Nicki: Monopoly doesn't have coinage.

Robb: That's what I just said.

Nicki: Okay. We should just kick this puppy off.

Robb: Okay. Wish somebody would just kick me. What do we have here? What's happening in the world?

Nicki: What do we have here? What's happening in the world? Well, we are wrapping up sleep week inside the Healthy Rebellion in our rebel reset. And that is all going very well. We miss last week's podcast. So, I did want to share some takeaways from the food week that some rebel shared. And this is a common theme, but it bears repeating because so often people think again that they are tackling the protein adequately and it is always amazing how many people realize that they are not.

Robb: I mean, we just have never seen someone who is still struggling with their body composition issues that they're like, no, I was totally on point with protein and this is agreed.

Nicki: So, this first one is from Ali and she says, okay, so this is old news, but I just have to say I've had some major aha moments after increasing my protein to one gram per pound of body weight during the reset. One, I've realized this is the first time I've ever eaten this much protein ever. I had no idea how little protein I was eating before I started calculating what I needed to eat to hit 130 grams per day. My guesstimate is around 50 grams per day prior to starting the reset.

Nicki: Number two, I missed a day on my protein goal and ended up rustling around the cupboard for something to snack on, which I didn't feel the need to do on the days where I met my protein goal. Number three, I was vegetarian for seven years long ago, and I've always had a tendency to binge on carbs. Could it be that I just wasn't getting enough protein to ever really feel full and hence the binging. If so, I'll consider my life changed. And then the fourth point is in the last week of hitting my protein goals, I've felt full after most meals. But I never feel bloated, gassy fullness I get after eight a carby meal. So, she says, why, oh, why did it take me this long? So, pretty, pretty cool realization. And again like, this is a recurring theme every time we do these.

Robb: And we get this story, Rob, I bought your book in 2010. I do CrossFit. Folks that have been at this for a long time. And as much pushback as I gave the weighing and measuring of food. And I think as a totally long-term solution to managing things, I don't think it works that well. I feel like time restricting your food or changing the composition is really where it's at. But man, that first week or so, if one more that just measure protein and did nothing else, then it would give you a ton of insight into what's happening.

Nicki: We also had a nice comment from Amanda. She says, "Seven days into the reset and I'm under 150 pounds for the first time in a long time." Yay. She says, "Focusing on my protein has made a big difference." So, another good one in the success category for our rebel reseters. Let's see. So, yeah, we're just wrapping up sleep week and heading into movement week inside there. So, good stuff.

Robb: All good stuff.

Nicki: Yep.

Robb: Yep.

Nicki: What do you have for us this week for our news topics?

Robb: Something very different. It's called, it's from the website, grabbyaliens.com. And these are some physicists and they, for the geeks out there, they might be familiar with this thing called the Fermi paradox, which Enrico Fermi postulated that if life is ubiquitous in the universe, we should see it everywhere. Because when you look at the rapidity of how humans have had advanced, if we don't kill ourselves or fall under complete totalitarianism and stymie a growth and progress and all that type of stuff. It's conceivable that within a couple of 100 to a couple of 1,000, within a couple of 100 years, we will have probably populated the habitable places in our solar system. And then within a couple of 1,000 years, we could at least have activities like gene printing apparatus where a non-organic machine lands on a planet, somewhere else collects

inorganic molecules, stitches it all together, turns it in humans and basically like populates the planet with humans.

Robb: And the first-generation is taught by machines in AI and all that stuff. There's been some sci-fi around that, Arthur C. Clark did some sci-fi around that a very long time ago. But basically the point being is that even absent faster than light or near light speed travel. Our neighborhood of the Milky Way should be just teeming with life and radio waves and everything. It's not. So, there's been all kinds of postulating around that. But this Grabby Aliens is a different take on this. And it's making the case that humanity may only be unique in how early we evolved, and life evolved on earth. And that we may just be some of the first people to arrive at the party. So, if one is into that type of thing, I find it very interesting.

Robb: And honestly, it's, I don't know. I just find this stuff interesting and in some weird way this is one of the funny things about less theistic people. They oftentimes turn to aliens as to fill that somewhat theistic God part of their life. But just the notion that there might be some other life out there. And if we totally shit the bed and fuck everything up that somebody somewhere will go on, regardless of what we do, which is kind of allows me to sleep a little better at night.

Nicki: Grabby Aliens.

Robb: Get them while they're hot.

Nicki: So, it's definitely a catchy URL. I don't think there was much a competition over that domain.

Robb: I don't know. Like a Jeffrey Epstein kind of angle or something like that. I don't know. So, yeah. I don't know.

Nicki: All right. Let's see our t-shirt review winner for this week goes to starfish 138. "Love your show, Rob, you have something most people lack these days, which is common sense."

Robb: That's terribly frightening. But thank you.

Nicki: Well, I will say that I feel a little encouraged that we've had some conversations with some young people in the last couple of weeks. One in particular, 14 year old here, that is the son of some friends of ours. And that kid has his head screwed on straight.

Robb: He is super buttoned up.

Nicki: And so it gives me a little bit of hope that-

Robb: And maybe a little bit of that story. He, as most teenagers in coming of age people should do, casting about a little bit looking for some identity. And then he bonded with and became friends with an older woman that they would go on walks and he would bounce different ideas off of her. And she through a Socratic process of questions and answers and relationship building. March, I don't even want to say March came along. But she induced in him a self-regulatory process and it has been very healing for him. And it's incredibly impressive to see. So, that definitely was a ray of sunlight.

Nicki: But anyway, Starfish 138, you get a t-shirt this week. So, send us an email to hello@Robbwolf.com with your t-shirt size and your mailing address. And we'll send you one of our Healthy Rebellion Radio t-shirts.

Robb: Just blow sunshine up our skirts and we'll send you the shirt apparently.

Nicki: All right. The Healthy Rebellion Radio is sponsored by our Salty AF Electrolyte company Element. Electrolytes with everything you need and of course, none of the crap you don't. And today I wanted to read a fun review from a verified buyer who is ecstatic that her hubby started drinking LMNT. And this review comes from Kiersten R. She says, "Love, love, love. Tell everyone about this. This got my husband off of Bangs. He was completely addicted to Bangs, two to four per day for the last three years. He's replaced it now with two to four LMNTs per day. And we couldn't be happier. His sleep went from an average of five and a half to six and a half hours per night to eight and a half."

Robb: Wow.

Nicki: "He's much more emotionally sound. And his mental clarity and libido are through the roof. I could not be more grateful." So, I thought that was a pretty fun review to share. Lots of good potential side effects from drinking LMNT aside from just hydration.

Robb: Due to LMNT, saving lives.

Nicki: Saving lives, saving marriages, all the good stuff. So, you can grab yours at drinklmnt.com/robb, that's drink LMNT, drink L-M-N-t.com/R-O-B-B.

Robb: So, should we run up the flagpole with the LMNT team like we've done like pots and breastfeeding. Should we have boner month for LMNT?

Nicki: Shit. What month would that be Robb? Is that a winter thing? A spring thing?

Robb: If I were stacking the deck and we're Northern hemisphere centric, I would make it sometime in the summer because photo period definitely helps all that stuff for sure.

Nicki: Okay. So, the LMNT plus the photo period is sort of the magic. That's where your hypostosis-

Robb: Well, that would really stack the deck in our favor. Yeah. Yeah.

Nicki: All right. Well, we can have that conversation.

Robb: We have people drink LMNT and then-

Nicki: Lay in the sun.

Robb: Well disconnect from social media, lay in the sun for at least 30 minutes per side. And they're like, oh my God, my life is changing-

Nicki: Naked.

Robb: Naked. And sun that taint. And then lo and behold, they're like, wow, I'm really frisky right now. And of course it's the LMNT. It's not like de-stressing in the sun and all the other stuff.

Nicki: Yes, I like it. I like it.

Robb: Okay.

Nicki: All right. Well, before we get to our questions for this week, I did want to share, we had a listener write in with a comment about the question we had the last episode from Katie-

Robb: Do you need a speaker for you?

Nicki: No, I can read that.

Robb: Show off.

Nicki: In episode 88 about child constipation. I can read it currently, although I'm on the cusp of meeting some readers. But this will be fine.

Robb: You're still hot babe. It's okay.

Nicki: Okay. So, this email came in from Dan and he said, "Robb and Nicki, I felt a need to chime in on question one on child constipation from today's podcast. I had a six-year-old with chronic constipation that resisted all of our efforts to alleviate for the long run. We had been seeing a pediatric GI at Phoenix Children's Hospital, and she recommended an MRI to look for "some kind of nerve thing" as my wife told me. I was thinking she doesn't have a nerve problem, but okay. So, we had the scan and she was diagnosed with a tethered spinal cord. And thank God we did the scan as the tether was pulling on her spinal cord and slowly killing the nerves that control intestinal motility. Left unaddressed there can be all kinds of issues that would have developed within weeks she was in the operating room and had a successful recovery. Not that it was easy to do all that, but she's now 15 and has recovered all function. So, if other methods don't help do check-in with a pediatric GI, it might just help a kid live a healthier, more normal life."

Nicki: And then he also says that his son was also diagnosed with it. And he's all good now as well. And interestingly, he shared this thing too, which is just an interesting tidbit, total side topic. "But my wife and I later discovered we had the empty HFR issue with folic acid, which of course helps prevent spina bifida. And spinal bifida is on the same continuum as tethered spinal cords." So, interesting.

Robb: Interesting.

Nicki: And I just wanted to read that because Katie's question and if your daughter's constipation doesn't improve, that might be something to dig into a little further. Thank you, Dan, for sharing that. Okay. Questions for this week. Our first one is from Robert on non Marine omega-3s. Hi, Robb and Nikki. I'm unable to supplement with fish oil because it severely increases my anxiety and will eventually lead to terrible episodes of panic and OCD. It took me a while to figure out it was the fish oil, because you typically only hear about how beneficial it is and all of the positives from supplementation. Because of this, I'm worried about getting enough DHA and EPA.

Nicki: I do eat fish about once a week or every week and a half. I don't seem to have the same problem when eating fish, but I'm sure I'm not eating it enough to replicate the same problem from supplementing fish oil. And I also worry about eating high amounts of fish due to contaminants. I've also heard that getting omega-3 from plant sources like flax seed is insufficient. So, how can I make sure I'm getting enough DHA and EPA? I'm 33

years old. I've been eating low carb for five years. I lift four days a week, very active and fit and a healthy weight. Also, any idea why fish oil does this to me?

Robb: So, working backwards. I have no idea. And maybe Barry Sears, who was pretty cracker jack on eicosanoids and prostaglandins would know. It is interesting though that like dietary sources of omega-3's from fish, ostensibly, I'm assuming that there's been some sort of a consistent cadence there. Maybe not. So, maybe there is kind of a dose response threshold on this, but I would remind Robert that things like sardines and mackerel lower down the food web and so tend to get less bioaccumulation, they tend to be more sustainably harvested and all that type of stuff. I wouldn't totally write off the potential of plant sourced omega-3 elongation into EPA, DHA. Something you could do is some genetic testing. I believe DNA fit, one of the things that they look at is does the individual have the polymorphisms for efficiently elongating these shorter chain omega-3 fats?

Robb: So, you could look into that and see to what degree that could play a role. And then again if you want to just get a status update doing an Omega-3 index, where they look at the saturation of red blood cells with the relative ratio of Omega-3 to Omega-6, that wouldn't be a bad idea to do that. So, instead of just casting around and I don't know, maybe you're an Omega responder and all the dietary linoleic acid is getting converted in the EPA, DHA, and then that's causing some other problems. So, as with most of this stuff, getting a baseline is probably smart. And then we can start tinkering with some things from there. So, I would get the Omega-3 index test, figure out where you are.

Nicki: I think you can get that-

Robb: Everlywell or ...

Nicki: From Grassroots Health, where we get our vitamin D testing. I think they also do the Omega-3.

Robb: Okay. So, I would get that. And then based off of, and then here, we are trying to entice people in. If you do that, Robert and you get the number then based off of that, we can start figuring out, if you are overtly low, then maybe we just try a cadence of three days per week, a serving or two per day of fatty, deep water fish, like sardines or mackerel or something like that. Run that for three months, get it rechecked. And also in the meantime, if you want to do your DNA fitter or poke around for the places, I'm nervous at this point about 23 and me, because it seems like they're selling everybody's data everywhere. So, that kind of sucks. The ship has sailed for me on that one.

Nicki: You're in some database.

Robb: I am in some database somewhere and-

Nicki: Lots of databases probably.

Robb: I'm sure I corrupted that database. But those are the things that I would do. And I think again get a baseline based off. the baseline might give us some insight into where to go.

Nicki: Cool. Awesome. Our next question is from Hillary on protein, she says, "I'm so confused about protein, many very smart scientists, wellness leaders say it to use it as a condiment and that low protein intake is equal to longevity. Others believe in leading with abundant animal protein to create strengthen muscle, which will equal longevity. I'm a fit 63 year old woman and confused about what science to follow. Thank you."

Robb: Do you have some thoughts on this?

Nicki: One thing that I've noticed, and this is just visually. You look at the people who are promoting the lower protein way of life and do they look like the picture of health to you? And I know this is totally a subjective thing. But if you're, obviously science, you want to follow the science. But also what does that look like in the person who is living that way of life? And I find that a lot of these people don't look particularly healthy or strong in their later years. And then like all the stuff that you have, I don't know if Ken Ford is still working on his book about Sarcopenia and Art De Vany spoke about this at length. But losing muscle mass is one of the surest ways to accelerate aging and your whole ability to ward off infection or illness is diminished if you don't carry adequate muscle mass.

Robb: Survive an accident, survive sepsis on and on.

Nicki: Right. I don't know, for me, it's a pretty case closed sort of deal. And also I did the low protein thing. I was vegan for two years and I lost a lot of muscle mass during that time.

Robb: And this was during your golden year prime. When you can kind of afford to do some tinkering like that and still get it back.

Nicki: Yeah. Yeah. And so I've experienced what that feels like. So, I don't know. I know the people and following the science is hard, right? Like follow the science. How many hashtags of that have circulated over the last two years that are confusing as hell, right? I don't know. What are your ...

Robb: Yeah. I mean, no, I really appreciate all that. And I think it's spot on the talk that I gave early 2020 longevity. Are we trying too hard, really digs into this stuff because there's this fear of protein equals intore, intore equals cancer and inflammation and all this type of stuff. And it's purely speculative that low protein is going to mean no cancer. And when we look at the studies that have been performed around calorie restriction, protein restriction, fasting, what we find is that these animals uniformly are overweight on the lab based food. And then they are protein restricted or calorie restricted or whatever kind of dietary restriction is put before them. And then their health improves. So, they're healthier, eating less of a garbage diet. And the very few studies that have been done looking at animals fed as species appropriate diet, and these critters are calorie restricted or protein restricted.

Robb: They die young and they die typically from some sort of frailty. So, and I'll say that some really prominent folks, not quite Valter Longo yet, or some of those right at the cutting edge people. But the next layer down, the people aren't conducting the research, but are doing a lot of translational stuff, kind of like us have pumped the brakes on their fasting message and have kind of circled back up on more emphasis on fitness and muscle mass and stuff like that. So, I would also, this is an easy one. Run this for three months, both ways, eat real low protein. See how you look, feel, and perform. And then really ratchet that protein up, get a gram of protein per pound of body weight and see how you feel, and preform with that.

Nicki: And you might also find what Ali and Amanda, that those two testimonials that are experiences that they shared in the Healthy Rebellion, you might find too, that eating lower protein leads to cravings and the desire to eat all the other carby things too, which if the body composition is of concern, that can make things really, really challenging.

Robb: And I dug into that stuff in wired to eat, but I've got to say Sacred Cow is probably the best treatment of this material. It's ironically, even though, so we covered the health, environmental, and ethical considerations of a meat inclusive food system or an animal product inclusive food system. I would argue that the nutritional treatment in that book is the best that I've done, the best that I've been attached to when you look at it from a practical standpoint of just improving health and taking all the weights and measures of being healthy now versus being healthy later, and nutrient deficiencies, and the tendency to overeat, if we don't get enough protein. Even the EAT-Lancet piece, which is this world health organization offshoot.

Robb: When their recommendation was made to dramatically decrease animal product consumption, right on the heels of that some people who are in those same circles cautioned against doing that because of overt nutrient deficiencies would worsen and people would undoubtedly increase their total caloric consumption, therefore increasing the diabetes epidemic because of the satiating nature of protein. And these are the people that are still like, oh, but cows are probably going to destroy the planet and do their climate change effects. So, they're still really nervous there, but they're also at least recognizing that there's a serious health trade off with removing these products out of the diet. And also as we dug into when Sacred Cow I don't think that animal husbandry has been given a fair shake and its role in the total climate change picture.

Nicki: Okay. So, yeah, Hillary, I think if you wanted to give that a shot. And I would just be pay very close attention to, if you do go low protein. How do you feel? Are you hungry? Are you craving other foods? Are you craving more carbs? And then how do you energy wise, strength wise, and workouts and ...

Robb: And I would give it at least three months because you won't notice the problems of protein insufficiency until a month or so in. It's going to take a time for your body to start falling apart and not feeling good.

Nicki: Personally, if I was 63, that's three months of, then you've got to dig out of that hole. And so I don't know. Obviously it's totally your call, but for me, I don't know that it would, I don't know that I'd be willing to do that experiment because I know how much harder it would be on the backend to regain what I lose during that period of time.

Robb: Totally at that age.

Nicki: Yep. Okay. Question three from Jamie. I think this is a he. Leads with, is that, IUP? IUP, Robb Dicky. "Ages ago I sent you a question about ketogenic diets and TBI, which you were gracious enough to answer on episode 38. I have upped my salt intake as per your answer to that question and it has helped. In the preceding time, I've been doing more research on TBI and I came across the world leader in its treatment, Dr Mark Gordon."

Nicki: "His protocol centers around dampening down the neuro inflammation in the brain in restoring any hormonal imbalances that occur after TBI. Although I'm not a hundred percent, I'm definitely better. And I just feel that it's just one or two adjustments that I need to make with the biggest thing. Perhaps the only thing holding me back being sleep or lack of it, I should say. I follow Dr. Mark Gordon's recommendation of a hundred milligrams of pregnenolone before bed. And whilst reports in his clinical practice, that for most people, this tidies up their sleep. It hasn't done that for me. Dr. Gordon says, when this happens, usually prescribes a small dose of progesterone, five milligrams. And this usually does the trick. Instead of doing that, I wish to try something else as I have come across the world of peptides, some of which I've experimented with. I've tried CJC 1290 with DAC." And Ipamorelin, Ipamorelin?

Robb: Yeah.

Nicki: "For growth hormone release, as well as BPC-157 for tissue and bone repair for some long-term issues I've had with my joints, which has actually helped me a little bit. The CJC 1290 and Ipamorelin didn't really do much for my sleep, but I have found deep sleep inducing peptide, which I have bought, but not yet tried. I've also come across SARMs selective androgen re-uptake modulators, which I haven't tried. They come with some pretty stunning claims to be made on both their benefits and lack of side effects. What is your take on peptides and SARMs?"

Nicki: "Would their long-term use turn off someone's own endogenous production in the same way that exogenous testosterone does? Or instead of SARMs, which I'm skeptical of being able to do the job of replenishing the role of testosterone in my brain. I am instead doing Clomid, 50 milligrams every third day. And also Dan Huberman's recommendation of using the herbs Fadogia Agrestis and Tongkat Ali," hope I'm pronouncing those right, "to help boost testosterone. Would it be worth cycling these herbs, especially Fadogia as from my understanding, it mimics luteinizing hormone. Could this then shut off my own endogenous production of luteinizing hormone." And then I won't even, we'll end it there.

Robb: Yeah.

Nicki: That's from Jamie.

Robb: So, when we saw this one, I almost ditched it because there were so many questions and so much stuff in here. It's really interesting stuff. At least if you're into these things. But SARMs are interesting. I've talked to a couple of docs about all of these peptides. Some of them seem legit amazing. I've tinkered, I tried the BPC-157, got nothing. Noticed, absolutely nothing. And I definitely wasn't looking this direction with sleep. I will circle back around though. And it made me chuckle like Mark Gordon is super legit and he laid out this protocol, due to pregnenolone. The pregnenolone doesn't work. Do the little bit of progesterone. And maybe it's just coming off of doing a lot of jujitsu lately and having some really amazing coaching. Some days the school that we're at, we'll have five black belts on the mat.

Robb: And there's just an amazing depth of bench and all of these folks, if they suggest something they're wide open to questions, but I find myself trying to tinker and innovate around some of the suggestions that they make. And inevitably it fucks things up. It's like, they've done it. And sometimes there's like, while I'm doing this and they're like, oh yeah, well, if you're doing that, then do this. But these folks that have been digging into things for a long, long, long time.

Nicki: You emulate before you innovate.

Robb: Yes. Yeah. And so I would throw out a crazy idea of like, why don't you follow Dr. Gordon's protocol for a while and see what happens because the progesterone can cascade into testosterone. The pregnenolone has its own roles in the pregnenolone steal in some of the shifting towards a Pro-Cortisol status. So, that's one thing. I would just kick the tires on Gordon's protocol first. Some of the other questions, like from my perspective, somebody that is dealing with some type of hypogonadism and experiencing legit physiological problems from that, starting at the, trying to turn things back on level, which is what is happening here with the herbs. And also with the Clomid.

Robb: That seems really smart and really, really conservative. And hopefully we're, again, checking levels. Did you check them before testosterone, free and total sex hormone binding globulin, estrogen, estradiol, dihydrotestosterone, check all of that stuff and get a baseline and then monitor it maybe once a year or twice a year so that we can see what's going on. The question about down-regulating the luteinizing hormone. Well, we don't really know if you're releasing luteinizing hormone right now, and there are assays for that. But I think it's a little bit challenging because it's a transient time critical hormone.

Robb: And so, I don't know if just a basic assay where you go in at eight in the morning and check it is really going to tell you what's going on. Maybe some DUTCH testing of some kind can look at that. But if you aren't getting luteinizing hormone naturally, which is one of the common side effects of TBI, then I don't know that it really matters if you stay on something that is mimicking that whether it's the, or facilitating that process, whether it's HCG or whatever. If you're just not producing luteinizing hormone or inadequate amounts, then I don't know that it really matters all that much.

Robb: Cycling this stuff might be a good idea, but again, I would get in and get some baseline on all of this. And then you can build a plan around this stuff instead of just shooting from the hip. And again, the most shootiest from the hip thing is definitely the SARMs even within anabolic steroid world. There are a plethora of anabolic agents that will build muscle mass and do all these types of things. But they do not plug the gap of testosterone with regards to bone mineral density and things like that. So, they aren't fully transferable, even if they have similar effects and the SARMs are working in completely different mechanistic ways.

Nicki: So, main takeaway, follow Dr. Gordon's thing to a T.

Robb: Follow Dr. Gordon's advice first.

Nicki: Yep. And then if that doesn't work-

Robb: And amidst that I would get some baseline numbers and figuring out, I forget how luteinizing hormone gets assessed. I think it's a time critical thing or a multi-time point. I forget exactly. But look at luteinizing hormone and get a good assay on that. Get a good assay on everything so that we know what's going on. Then if he's already tinkering, but at least then we can get a sense of whether or not this stuff is working. And it's worth mentioning that Clomid in about 1% of people causes some non beneficial vision changes. Sounds like maybe that's not the case here. But there's another newer version of that called enclomifene, which tends to have even lower likelihood of side effects. But does the same kind of blocking of estrogen receptors in the brain so that it tends to turn on the luteinizing hormone.

Nicki: Cool. All right. It's time for the Healthy Rebellion Radio trivia. Our Healthy Rebellion Radio sponsored drink LMNT is giving a box of LMNT electrolytes to three lucky winners selected at random, who answered the following question correctly and Robb, you're laughing at my question.

Robb: You actually did it though. I'm impressed.

Nicki: I did. I did. Well, Zoe and Sagan are into collecting those little horse models like Schleich-

Robb: Briar horses and Schleich.

Nicki: Or Briar the different animal figurines. And they have a paint horse, that's the breed. A paint horse. And so he comes up to us this morning. He's like, mom, do you know what I named my paint horse? And this is the trivia question. Rob, what did Zoey name her paint horse?

Robb: Well, it was not Bob Vila, which was your first answer. Who's the home improvement guy. It's Bob Ross.

Nicki: Bob Ross. Yep. So, I thought that was kind of funny. And I was like, how do you even know who Bob Ross is? Because she hasn't, to my knowledge seen-

Robb: It's because of another show that she watches Infinity Briars, our kids really don't get a lot of TV, but-

Nicki: They watched this gal that collects, and shows, and sows and crafts all of these little like, oh-

Robb: Briar horse related tack.

Nicki: Yeah. Tack, like bridles, and horse blankets, and saddles, and lead ropes. And she makes them all for these small horse models and she sells them and she was like a teenager. And she has her own online store and she's-

Robb: She's making a lot of money doing that.

Nicki: Yeah. So, anyway, she has a horse that-

Robb: It is named Bob Ross.

Nicki: ... is a paint, that she named Bob Ross. So, our girls are emulating before they innovate.

Robb: Okay so the fucking answer is Bob Ross.

Nicki: Yes. Okay. To play, go to robbwolf.com/trivia and enter your answer. And we'll randomly select three people with the correct answer to win a box of electrolytes from LMNT. The cutoff to answer this week trivia and be eligible to win is Thursday, October 7th at midnight. Winners will be notified via email and also on Instagram. And this is open to residents of the US only.

Robb: They're pretty good at cheating that right on the fly.

Nicki: I'm Good. I'm good. Okay. Muscle cramping is our next question from Ben. "Hey Robb and Nikki great podcast. I really enjoy and appreciate what you do. I have a question regarding muscle cramping. It's something I've dealt with for essentially my whole life. My father has had problems with hamstring, calf and hand cramping through his life as well. Personally, after harder workouts, I noticed my hamstrings have a very low threshold to cramp as well as hands and abs. At night my gastrocs and perennials cramp as well. Since starting LMNT and supplementing my own salt around six to eight grams total of salt per day. My hamstring abb and hand cramps have greatly been improved. Though my calf cramps still seem to be present. The nighttime calf cramps fluctuate from one to two to nine to 10 times per night requiring I jump out of bed to dorsiflex my foot against the ground to get it to stop.

Nicki: I've tried some leg cramp pills from sprouts, which seemed to help, but not completely. Sorry for rambling. But lastly, I had my DNA run and it states that I "wasted salt" and should add more salt to my diet. So, I'm wondering if you think I just need to supplement with more salt. Though at times I feel I put too much in and disaster pants is a real thing, or if there may be something bigger that I should see a functional practitioner for. Any insight would be greatly appreciated for reference. I'm a 31 year old male. I CrossFit five to six times per week and I'm standing in the operating room three to five times per week. Six foot four, 225 pounds, eat paleo, Ben."

Robb: It sounds like a great dating option. Dr. CrossFitter 6,4, 225, lean, athletics.

Nicki: Leaps out of bed nine to 10 times a night flexing.

Robb: Okay, good dating options as long as you sleep in the other room. So, I really do think that, definitely doing a deeper dive on this wouldn't hurt. But if the total, I'm assuming the 68 grams total is like all sources. That's a pretty good amount, but Tyler and Luis have small females in the keto gain scene that CrossFit and do things like that. And they're like 12 or 15 grams, not all of them, but some of them. Some of the folks that are super sweaters and that they tend to have, the super sweaters tend to be comparatively inefficient with the way that their sweat is formed. It tends to be more beads than the little misty stuff. And this tends to be more of a problem with males than females. And also they tend to have much saltier sweat.

Robb: And so women that are almost half his size, at least a hundred pounds smaller are oftentimes doing twice as much sodium to maintain what they're doing. So, that seems the lowest of lowest hanging fruit. If these just running LMNT, even though we tried not to go crazy on the magnesium and we had magnesium malate, which is arguably one of the most absorbable forms of magnesium. Some people like I was talking to Diana Rogers this morning and her GI tract, she can handle LMNT up to a point and then she has to take care of her sodium from other sources because the magnesium she's kind of tracked down, it just kind of blows things out. So, might need to look at olives or salami or some other sources. But I would track everything in chronometer and get a really good, assess it when you're at 10 grams per day consistently. You know, what's the frequency, yeah.

Nicki: And track, like keep a little notebook by your bed. Like, okay, I only had two cramps last night and I had this much sodium. Or I had nine cramps last night and this was my sodium. Maybe kind of seeing how that tracks with activity as well. I don't know where Ben lives, but if it's a super humid environment that matters as well. So, kind of tracking it all and maybe you can see a pattern emerge with what's going on.

Robb: For sure. But again, people much smaller than him are doing twice as much. And that doesn't mean implicitly that he needs to do that. But that's an easy place to tinker. Yeah.

Nicki: Right. Okay. Last question this week is from Paul on Grass Fed Meat. "Hey guys, I have a question about Grass Fed Meat in the evidence for its importance for it to be grass fed. Eating meat from healthy well fed free animals intuitively sounds like a good idea for your health. It also fits with the overall philosophy of paleo eating, which I use as my guide through these things. However, living in Norway sometimes means that it's not possible. And I have to get my meat from the supermarket. Got me wondering about what scientific evidence there is to support the hypothesis that grass fed slash organic meat, et cetera, is actually better for your health. So, my question is what evidence, if any, has been found of this in the literature. If there is evidence, are there some animals

that are better than others to get from the supermarket? I noticed myself, if I eat half a rotisserie chicken from the supermarket, I can feel pretty rough after that. But half a kilo of mince, just ground beef, I'm just fine. Same with any fish."

Robb: So, we covered this in Sacred Cow. We really dug into this and this is one of the things that we've never really had huge blow back from the vegans. We kind of anticipated that and we actually had a whole game plan for what would happen when vegan bloggers started picking Sacred Cow, the film and movie apart, and the vegans didn't have to do it because all the meat elitists pick us apart. The grass fed elitists, there are some people out there that have said, have gone on record that if you can't eat grass fed meat, then you shouldn't eat any meat at all, which is just preposterous. And what we ran into. And you're backing stuff up a little bit. If we have a ruminant that is on clover and they've been on clover for weeks, they're probably going to have a fatty acid profile that's different in the muscle.

Robb: But what we find is that pastured dairy is much more healthy, has more carotinoid, has more Omega-3s and whatnot. There's kind of a pretty important difference in the phytochemicals. But the muscle meat, there's just not that much difference. Diana and I tortured the data. We hired an independent researcher and we didn't give this individual any of our research. We just said, hey, go out and compare and contrast the nutritional profile of pastured versus conventional meat. And something that people forget is that conventional meat spends 75, 80% of its life on grass and then it gets transitioned. And then oftentimes what it's on is silage and crop residues. It's not just inherently grain. Sometimes it is, sometimes it's not. But what we came out of all that is just that meat, particularly ruminant meat is really, really nutritious.

Robb: They're amazing nutrient up cyclers. Even though people were kind of rightfully so appalled. I think it was back in the 2008 economic implosion, a bunch of candy expired or something, and they were feeding it to cows and god damn if those cows aren't really, really good at turning that stuff into good nutrition. The part of the reason for that is that everything that you dump into the gut, not everything, but the symbiotic bacteria create short chain fatty acids, and those short chain fatty acids end up doing all these magical things within the bodies of the ruminants. And at the end of the day, meat is a super nutrient dense source of protein, of iron, of magnesium, of zinc. And that's just the way it is. And there's really not outstanding research showing a massive delta and massive difference between pastured meat and conventional meat.

Robb: And again, I will acknowledge that if one were to compare meat on Clover versus say, conventional meat, there might be a difference there, but it's still unlikely to be huge. And within this discussion of how do we feed a global population, and low-income people, and things like that. I think it really misses the mark. And this is where, and I'm guilty of this. I perpetuated some Of the mythology around the differences in Omega-3, Omega-6 ratio in grass fed meat versus conventional meat. And pastured meat has a little bit more Omega-3 than conventional meat.

Robb: But you need to eat eight pounds of grass fed meat to get the same amount of Omega-3 as you get out of three ounces of salmon. So, it's not the place that you go to for Omega-3. It's a nice sideline, but it's just, it's not an omega-3 rich food. Have a can of sardines, if that's really the nutrient of concern there. And as to the deal with the rotisserie chicken, they inject chicken with a lot of kind of wacky stuff, like some food brines and sodium bisulfate. So, that might be why there's some issue there.

Nicki: Well, and also what are they seasoning the rotisserie chicken with. Sometimes, there's like gluten modified food starch or some sort of gluten type things in the seasonings

that they're putting on those. So, you just have to watch carefully. But you and Diana have always said the best quality meat that you can afford. But eat meat for the nutrition.

Robb: Yeah. And if you're concerned about the sustainability story, ruminant animals are more sustainable than pork or poultry, because pork and poultry are almost exclusively raised on grains and soybean meal. Like just about a hundred percent. Whereas even like the worst case feed lot beef has spent the bulk of its life on grass because it thermodynamically efficient because grass grows effectively for free. And so that's what folks do. So, there are great environmental reasons to go that direction. I think that there are better ethical considerations like if you're really concerned about the treatment of animals, the way that factory poultry and pork production are handled is pretty appalling. Diana did some speaking for, and I think I can talk about this. She's working with these guys. She did some speaking in Southeast Asia for Merck because the pork production there only exists ...

Robb: And the pork production, pork and poultry production globally, the way it's industrialized exists only due to antibiotics. And upwards of 85% of the antibiotics consumed globally, go into animals. And it's in these confined feeding areas. Most of it doesn't go to cattle, because cattle don't spend their whole lives in this scenario. But absent constant antibiotic application, you cannot industrial, you can't raise pork and poultry at the industrial levels that we see now. Historically pork and poultry played completely different roles in our food systems before the industrialization of the food systems, post World War two. There was a, I think it was Herbert Hoover, a chicken in every pot. It's because chicken used to be a really infrequent, rare thing, because chickens cleaned up some of the other stuff they were used in kind of managing pests. And some of the kitchen scraps went there. Pork was similar. All kinds of things went to pork, including human feces in some areas. And so it-

Nicki: Human bodies, if you've watched Deadwood.

Robb: Human bodies, if you watched Deadwood. Apparently they're very efficient at that. But a global food system, and this is one of the ironic things that has happened over time is beef and ruminant animals have really gotten this bad rap. And so people eat far more chicken now than they used to, and it is not as sustainable. And it's far more dependent on antibiotics and it's ethically, it's much less ethical because of the quality of life that these animals experience. Those things really should be secondary and tertiary food sources. I know I'm rambling on now. We wanted this to be a short episode, but it's getting longer. But there was a piece about two years ago, some folks in New Mexico, small town in New Mexico, that they had basically talked to all the restaurants in town. And these restaurants collect all the food that folks don't eat on their plate. And they collect it-

Nicki: Instead of throwing it in the garbage, they were collecting it and feeding it to, they had a whole pork operation.

Robb: Built around this thing.

Nicki: Food that would otherwise go in a landfill.

Robb: And about 50% of the food that's produced globally is landfilled. So, and this wasn't the stuff that Paul asked. But this is where the sound bite treatments of these topics suck. And this is why we did the book because you play this whack-a-mole game, well, what about this? What about that? In this book format, you can go from point to point to

point anticipate what the questions and the pushback are going to be and address those things. And put inline citations and everything. So, this is part of the reason why I'm going a little bit longer on this. But it's really good question. The long and short Paul is that I wouldn't be concerned about the difference between pastured meat and conventional meat when and where we are able to support local de-centralized food production.

Robb: I think that's great. That should never be the gold standard that people are held up to. That really is fucking privilege in this time where everything is weaponized. But if you have a family that's living on the margins, you have a young couple, that's got a couple of kids and they're trying to get their lives going. And they're aware that good nutrition is important for them. Any animal products are going to be better than processed foods and nutrient devoid grains, and those sorts of things. So long as we have enough of a central feature of those animal products. That really is the thing that provides enough opportunity to make the grains and legumes and all that stuff not harmful. It's basically, you tolerate those up to the degree that you're actually getting adequate nutrition from animal products.

Nicki: Okay. I think that was good.

Robb: Cool.

Nicki: I think we're good. Let's see. Thank you everyone. Please check out our show sponsor LMNT and grab your electrolytes for all your electrolyte needs. And do that at drinklmnt.com/robb. That's drink L-M-N-T.com/R-O-B-B. If you have a question for the podcast, you can submit that at robbwolf.com, R-O-B-B W-O-L-f.com. And I hope you all have a very safe weekend. Happy, healthy, get outside, do something in the fresh air if you're able. And we'll see you next week.

Robb: Or go spend your weekend, getting teabaged at a jiu-jitsu tournament or seminar like we are.

Nicki: All right, everyone. We'll talk to you later.

Robb: Bye, everybody.

Nicki: Bye.