

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. 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: Howdy wife.

Nicki: Happy New Year hubs.

Robb: Happy new year.

Nicki: It is at least the day that this is releasing the first day of 2021.

Robb: Wow you're perky.

Nicki: I think I'm just excited at the prospect of 2020 being behind us all.

Robb: I'm looking at that as the light at the end of the tunnel is probably an onrushing train or maybe hoping that is so I'll just reserve judgment on that.

Nicki: All right, I understand your thought process there but one can have hope, one needs hope.

Robb: You can but then-

Nicki: You cannot survive without hope.

Robb: If you have no hope then it cannot be taken away from you.

Nicki: But you can always maintain some small shred of hope, regardless of the circumstances, no?

Robb: I guess you could and if you want to that's fine.

Nicki: We're kicking off this new year with a bang. What else hubs what else?

Robb: I don't know. We've got our reset coming up, I'm working on my yearly training and whatnot update I will be 49 this year, which is kind of crazy.

Nicki: Later this month, birthday coming up for you.

Robb: That is usually pretty popular. Am I on HRT, TRT. If I am, what am I using, what's the dosing? Can't find out unless you are a member of The Healthy Rebellion.

Nicki: There you go boom. Also in The Healthy Rebellion, January 1st is the first day of our seven day Cold Shower challenge. So lots of rebels are maybe even right this moment handing in the shower-

Robb: Freezing their cajones off.

Nicki: And shifting it from hot to cold.

Robb: I asked if I could opt for a rubber hose flogging challenge instead and people shot that down. So it's like...

Nicki: In some places of the world the pipes are frozen and there is no flowing water outside due to the temperatures. So that's not-

Robb: What's your point to that.

Nicki: That's not doable for everyone, the shower is.

Robb: I said a rubber hose flogging?

Nicki: Okay, when you said that I was thinking cold water flowing through the rubber hose.

Robb: No, it's a fucking flogging where I'm beat with the hose, Jesus Christ. This is the irony here I'm requesting to be beaten with a rubber hose in lieu of cold water exposure.

Nicki: Okay, you said hose and that made me think of water.

Robb: Hi, literal Lucy. This is The Healthy Rebellion radio.

Nicki: Yes, this is 2021 folks the first episode of 2021, hopefully it gets better.

Robb: It can't get any worse. Oh no, wait it can always get worse.

Nicki: Let's see, we also have our, you mentioned our rebel reset kicks off in just a couple of weeks on January 15th. These are always a fun way to work on your nutrition and lifestyle goals. We do our seven day carb test out of the gate. And then we're going to focus on a week of food, sleep and movement and community. So folks have a variety of goals going into this. It's not a one size fits all event. Some folks will choose to focus primarily on sleep. Some people might want to lose fat, some people might want to gain weight. Some people are eliminating certain foods to see if it impacts their digestion in a favorable way. Some people are focusing on community so just choose your own adventure-

Robb: And I will just shamelessly throw this out there. What's the if you do a monthly deal on The Healthy Rebellion-

Nicki: Its 29.99 a month.

Robb: 29.99 a month you can do a year up front and it's cheaper than that. You get three resets a year around nutrition as a primary focus, but we look at the four pillars of health nutrition, sleep, movement and community. We help people to dial all that stuff in. I wouldn't say that each and every one is customized but we provide enough resources so that people can get themselves 85% there and then we can help you tweak the remaining 10, 15% that you need to make that stuff work and people crush it. And you can easily find stuff like this around the webs for 10 times more money for \$300, \$400 for a six week gig, and so-

Nicki: And that's not to mention the different challenges and activities and events that we have going on in between those three primary resets throughout the year. So we've got some fun stuff lined up again with basis, health and performance this coming year and lot we do our book club and different rebels who have strengths in cooking and whatnot.

Robb: Like Jack and Eva Bee.

Nicki: Showcase some of their talents and do a demonstration. So we've got a lot of fun.

Robb: So I've been shy about pimping and promoting the rebellions like "Oh, come hang out," I've been looking around somebody ping me what some folks in the If It Fits Your Macros world are charging for this intervention and what they're doing. And it's basically a battery of links to other people's websites with recipes that include like Campbell's soup and stuff like that. And they're charging \$60 a month and all this stuff. And I'm like, for fuck sakes like, this is really good. And again-

Nicki: And I would say too we have for by some miracle attracted the most amazing group of people-

Robb: And to that point. We-

Nicki: The community inside of The Healthy Rebellion.

Robb: I don't mean interrupt, but to that point, the community is good enough that we are going to cap enrollment and this is not actually a like, we'll get it now before it's closed. Although I guess it really is. But its actually-

Nicki: We've been talking about this for the last several months, even in some of our live chats with other rebels talking about how, because it is so great, like how can we maintain this as it grows, and you get to some certain number. And I feel like that-

Robb: Some assholes make it in and then things go sideways. And so that's not going to happen here. We're going to cap enrollment, people have already cheered that we're going to do that. So we have a little ways to go on that. But if you want to get in there, get in and I'd love to have you. Unless you are asshole, in which case go sign up for the If It's Your Macros people because they seem to be birds of a feather in that regard.

Nicki: Man, yes.

Robb: Didn't know it was going to be a salty talk.

Nicki: This is a salty Q&A. What else, we've got some live chats, we always do live chats to just one other aside about what happens inside the Healthy Rebellion community, usually weekly. They also happen more frequently during resets, where it's just a free flowing conversation with whoever's available to jump on. And these are-

Robb: There are a ton of fun.

Nicki: Hilarious, people love them. They're fast paced and just a good, good time. So actually, we just did one this week. And Robb, you were you're back was bothering you from sitting so much. And so Rob had his laptop on top of the air fryer in the kitchen as his standing station.

Robb: I was just cruising around the house carrying my laptop and I'm like, "Oh, that's perfect."

Nicki: Yeah, that was pretty funny. So anyway what do you have for our news topic today?

Robb: A really cool paper on my desktop, I have a couple of different folders like keto papers and whatnot. And I have one folder, that's what I considered foundational papers. It's not a ton of them, but it's the stuff that I see as being indispensable general knowledge and it's the stuff that can be very detailed, but it oftentimes provides this 30,000 foot level view that if may toot my own horn, I feel it's perspective and framework, oftentimes that provides certain folks an advantage, all the information in the world is out there for everybody. But oftentimes, it's the framework that you use that determines whether or not you're able to do anything meaningful with it.

Robb: And this paper is called Hallmarks of Health. I push this around social media a little bit and remind me I might talk a little bit about our status around social media. But I made the point that this whole term of health has been this ambiguous thing. Well, it's a lack of disease. And that's a very unsatisfying bit of information. And it's interesting people out of the evolutionary biology world have oftentimes made light of ancestral diets, because they'll make the really erroneous claim that evolution doesn't necessarily select for health. I'm like, "What the fuck does it select for?" If you're unhealthy, you are less likely to reproduce and survive and so it's such a ridiculous non sequitur, but this thing actually breaks health into eight different elements.

Robb: And it's very interesting, I'll read from the abstract "Health is usually defined as the absence of pathology. Here we endeavor to define health as a compendium of organizational and dynamic features that maintain physiology." Just as an aside, I really like that because when you think about all of this from the perspective of information processing, which I really dig that perspective, going from genes to proteins and how the proteins interact with our physiology and hormones and whatnot, in thinking about it more like a computer or computing or information management versus a bomb calorimeter, where shits just getting burned and then released, I think it's pretty helpful.

Robb: "The biological causes or hallmarks of Health include features of spatial compartmentalization, integrity of barriers and containment of local perturbations." You want the shit happening in your mitochondria to happen in it and not outside of it, you want the stuff inside your cell to happen in it, not outside of it, you want the stuff inside your gut to happen in it, not outside of it. So this barrier and compartmentalization story is huge. And it relates to information processing and keep the hot side hot, cold side cold, all that type of stuff.

Robb: But this is again, it really shines an interesting light on the outward manifestations of appropriate diet and lifestyle, this stuff tends to get fixed or improved. And if those things have problems then we need to endeavor do to address those. "Maintenance of homeostasis over time recycling and turnover, integration of securities and rhythmic oscillations is circadian biology, and an array of adequate responses to stress, homeostatic resilience or medic regulation and repair and regeneration. Disruption of any of these interlocking features is broadly pathogenic, causing an acute or progressive derailment of the system coupled with a loss of numerous stigmata of health."

Robb: which is pretty eloquent laid stigmata, that is the whole crucifixion marks and everything, but it's a beautiful paper and technical thick but if you really want to appreciate the nuances of health, and really, when we look at what starts happening with any type of chronic degenerative disease, some element of this goes sideways. And

it's usually mitochondrial dysfunction, some sort of gut barrier, integrity issue, blood brain barrier.

Robb: It's very powerful and I may end up doing a piece, kind of comparing contrasting Greg Glassman broad times modal domains as the penultimate definition of health and how it's nice to try to find very simplistic explanations for things but it also can be a procrustean bed where when you're trying to sell people on a super simplistic idea, then you make up super simplistic explanations for the world and they don't always bear out in reality-

Nicki: I can see it. It could be a salty tack.

Robb: It could be a salty tack.

Nicki: 2021.

Robb: Yeah.

Nicki: Okay, and we'll link to that paper in the show notes on rebels.com and let's see, it's time to announce our T-shirt winner for this episode it goes to Ralph Smeltzer, he says "The podcast that got me obsessed with podcasts."

Robb: We know this Ralph By the way, too.

Nicki: Okay, this Ralph is a rebel.

Robb: This Ralph is a rebel.

Nicki: Okay.

Robb: But he requested, he said "Hey, if by chance my stuff gets picked, don't mention my real name because I have a million spelling errors in there."

Nicki: Well, nobody sees the spelling errors. And Ralph I will read over them without calling attention to them. "I cannot recommend The Health Rebellion Radio enough. Not only is this podcast light hearted, but it is also a public service. In my opinion, not only will you learn a few things, but you might spit your coffee out with laughter in the process. The thing I respect about Robb and Nicki the most is that they are interested in the truth rather than just being right which is probably why they are right often. They're not ruled by their egos. The fact that they are willing to change their stance on a particular topic if new evidence emerges is refreshing and it explains how they've been able to help so many people reclaim their health. Another big plus is that they are Brazilian Jiu-Jitsu practitioners and students so not only are they smart, but they can whoop that ass too in all seriousness this podcast is gold. Do yourself a favor and tune in thank you to for everything you do."

Nicki: Awesome, Ralph. Thank you so much. Send us an email to hello@rebels.com with your T-shirt size and your mailing address and we'll send you one of our Healthy Rebellion Radio T-shirts. And for the rest of you listeners out there. You also can get your hands on one of our Health Rebellion Radio T-shirts. Just leave us a review on iTunes. And if we read your review, spelling errors and all, you'll get a shirt.

Robb: Just needs to be spelled phonetically sufficient.

Nicki: Yes.

Robb: To get the idea.

Nicki: Yes, we've given the number of questions we've answered over the years, the spelling errors that we've seen are staggering.

Robb: Like Rutger Hauer, in Blade Runner.

Nicki: I don't think I ever saw that movie.

Robb: People can't believe the things I've seen.

Nicki: Okay. Yeah, I'm not good with movie quotes, I will never claim to be. All right, this episode of The Healthy Rebellion Radio. In fact, this year of The Healthy Rebellion Radio is sponsored by our salty AF electrolyte company, Element. If you're a regular listener of The Healthy Rebellion Radio, you've heard us answer probably dozens, if not multiple, dozens of questions where inadequate electrolytes were the culprits or the answer that Robb gave to the question.

Robb: Because I just make stuff up and lay out my own procrustean bed to facilitate electrolyte pimping.

Nicki: Exactly.

Robb: No, actually, it ends up addressing a lot of issues.

Nicki: Totally.

Robb: So it relates anything from keto flu, to muscle cramps, we've seen some interesting inroads into some medical areas like PoTS postural orthostatic tachycardia syndrome, breast milk production, it's been really cool. It's been a fascinating process, because we have a good old friend that we haven't heard from in a long time, Dan John, and when he would give this kind of lectures, he always made the case that when you're at a seminar, really try to focus your questions and your experience of that seminar focused on your needs. And it was interesting because I feel good on low carb and ketogenic diets.

Robb: And I had historically had a hard time fueling glycolytic based workouts and jujitsu and all that type of stuff. And then I met Tyler and Luis, and stuck those guys and hump their knees and out in this bigger world of folks working with people clinically, I can't really think of anybody that it had directly worked with more people with a properly formulated ketogenic diet than, than they have. It's literally 10s and 10s of 1,000s of people and shocking success stories. And you all have heard this, so I won't belabor the point too much Nicki, is probably given me the stinky eyeball to move along here. But-

Nicki: No stinky eyes for me.

Robb: The long and short of it was I gave them what I was doing, they looked at it and they're like, "Dude, you need more electrolytes in particular sodium," took me a year to listen to those guys. And this was really the whole genesis of Elements. And it's cool and then I went into this trying to address my own problem. Finally got my head screwed around where I understood, this really is a thing and just salting my food isn't enough for me in particular and then immediately recognized that the folks that we serve we're suffering

from a bunch of the same problems and it's just gone from there. It was born of a situation of addressing some legitimate need, so that's been cool.

Nicki: I want to actually read one of our verified buyer reviews taken directly from drinkmnt.com This one is from MistyW, and she says "So tasty, since every packaged item these days seems to be geared toward an overly sweet taste. I was surprised on first sip to find that it is perfectly salty and just sweet enough and equally surprised at how delicious it was. I became hooked at first swallow all the flavors and the variety pack are great, but I think citrus has my heart. Hello low carb marks."

Nicki: And if you haven't tried Element yet, this is the time to do it right now through January 31st of this year, so January 31, 2021 you can get a free eight count sample pack. If you just pay for shipping that comes to just \$5 for folks in the United States. And you'll get two sticks of each citrus salt, raspberry orange and the raw unflavored. And as misty alluded to this citrus salt does make a great low carb mark if you are so inclined. All you need to do is go to drinkmnt.com/Robb that will take you directly to the page with the sample pack and free plus shipping offer. That's D-R-I-N-K-L-M-N-T.com/R-O-B-B. And remember that offer is good just through January 31st of 2021. So if you haven't tried element, now is the time to get your free sample pack.

Robb: Cool.

Nicki: Okay, hubs. Let's move on to our questions for this episode. Our first one is from Sally, and she's wondering about the lack of cognitive benefits on the keto diet. "Dear Robb and Nicki, I have a question relating to a comment that Robb, made on a recent diet doctor podcast about how Nicki didn't feel any of the cognitive benefits or mental clarity usually associated with keto and similarly does not suffer with the keto flu when reentering ketosis. I wondered if this was at all typical as this is the first time I've heard this mentioned and is very close to my own experience. I've been keto for just over a year and other than a little tiredness for about a week after starting. I've never felt any keto flu symptoms, or the miraculous mental clarity, amazing sleep or ability to go hours without food that everyone else seems to achieve."

Nicki: "When I test my ketones, I'm usually point five millimolar or above. Maybe I never had brain fog or crappy sleep to start with. But I'm starting to feel I'm being shut out of a special keto club, especially when it comes to the ability to effortlessly fast as my fellow keto dieters, do. I wonder if I need to have higher readings to feel these benefits? And if so, do you have any suggestions on how to achieve this if my macros and electrolytes are on point? I know that the time the few times, I've had a high carb sugar day, I've had terrible inflammation On the following day. So I'm happy that Keto is doing something even if I don't feel I'm getting all of the benefits that others do. I would welcome your thoughts. Anytime I try and find anything via Google. I just get reams of reports of how everyone is achieving what I am not many thanks, Sally."

Robb: Yeah, it's interesting, I literally think that we're the only people that have talked about this, you have the keto haters that will point out that well, not everybody feels great on this. And then I think some of the keto haters think that the folks that are claiming like myself that I legitimately feel better on keto, that I'm making it up and there's really not any difference. But this was one of the things that drove me to do the talk that I did several years ago now, metabolic flexibility, the Rosetta Stone of the Macronutrients Wars and all that type of stuff, because you and I did some cool self experimentation for wire D in particular and you just kick the shit out of me on better blood glucose response. And then we would tinker with keto.

Robb: And I think you even produced higher ketone levels than I did for the most part, which that can go back and forth. Maybe I'm utilizing it more maybe I'm directly using fat so that that becomes no big thing. But by and large, you don't really notice one way or the other. And whether you're in or out, you don't really get ketone flu.

Nicki: It makes me wonder if Sally, I think a lot of people that get the miraculous mental clarity they might have been coming from a more standard American diet and eating.

Robb: Or just metabolically broken.

Nicki: Right. She doesn't mention how she was eating prior to this, but if she had already been eating paleo or already significantly cleaned up her diet, you might not see that mental clarity boost that lots of people talk about.

Robb: Maybe but I tinkered with just paleo and that level of carbs I don't feel well on. I think that there is something to this.

Nicki: So she might just be a little bit more metabolically healthy.

Robb: Metabolically flexible and she truly goes in and out of ketosis and maybe doesn't notice that big of a deal.

Nicki: I will say, because so Sally, I don't notice any significant cognitive boost when I do keto, but I am able to go hours without food. So I'm wondering if you are doing sort of the standard keto diet that is more on the high fat side of things versus a protein centric keto diet, because as we've said, in many podcasts protein being the most satiating of macronutrients, if you orient your keto diet around protein first, I think that can be the key to achieving that ability to go without food.

Robb: And I will say this too, I've noticed and I've talked to Tyler and Luis, about this, I think when people first get into keto or low carb and particularly if they still have significant body fat to lose, they can fast pretty effortlessly. I still get hungry I eat most days three meals a day, I can get by with two meals a day depending on the timing and all that type of stuff. But I ping those guys I'm like, "Hey, I still get hungry." Now. It's not the type of hunger that I had when I was on carb rollercoaster I'll be hungry but I'm not dysfunctional and losing my shit angry-

Nicki: You're not hungry you are not starving and getting emotional and you are not ready to kill someone.

Robb: So it is different and they think that this is some of the stuff that floats around keto land is that you should forever and for always have no appetite and never be hungry and people do get to that spot. And we see all kinds of problems with them. They have signs and symptoms of like hypothyroid and their hair's falling out. And so that isn't necessarily a great thing either. I think that normal appetite signaling, particularly again if you're reasonably lean your body, although you could go extended periods of time fasting. Your body doesn't necessarily want you to do that he wants you to go find some fucking food.

Nicki: And she doesn't mention anything about weight loss, so it sounds like she is getting the sense that she's probably lean.

Robb: Yeah.

Nicki: And I guess Sally, my thoughts would be, look at your macro composition make sure you're focusing on that protein and see if that doesn't allow you to not have whatever hungry, you're... Well, into Robb's, point you're going to be hungry we're humans, we get hungry when we need to eat. But you should be able to go if you needed to, if you had errands to run and a train was coming by and you had to sit and wait and you got delayed for extended periods of time. You should be able to make it for a few hours without going crazy.

Robb: And you could be hungry, but you're not going to be meltdown.

Nicki: Finished.

Robb: Yeah, I remember when I did the I-Caveman show, the first three days all the people did was talking about food. And it was crazy, because all these folks had eaten a standard American diet, and I went into it ketotic and it was crazy, the fixation the neuroses around it. And then by day three people were it's not that big of a deal. And it actually got easier as time went on. And that is right, in that that time window of people entering ketosis due to fasting, but that first 72 hours, I wanted to kill my castmates, because I'm like, "For the love of God," but I also get it.

Robb: I like your thought around the protein. We have another question that's coming up around fasting. Everybody is so geeked out on fasting right now. And fasting is cool, I think it's got some utility. But at the end of the day, when you overlay a properly formulated diet of any kind of protein centric, nutrient dense, some exercise some sun on your skin. I don't know how much more upside there is with fasting or maybe you do like 72 hours here and there, something like that. But I think that folks have really gone crazy on this. And maybe we need to release the broadly release the Longevity: Are We Trying Too Hard talk that I did for last year, because this thing comes up again and again and again and I like helping folks but I think that people are really lacking perspective on this all thing.

Nicki: I think we're going to release that when we do our annual review big PDF that we're putting together.

Robb: Okay.

Nicki: So that'll be part of it.

Robb: Yeah. So Sally, keep your eyes open for that and keep us posted, let us know what's going on with that.

Nicki: Okay, next question from Eric, excuse me how to eat enough protein. And Is that too much protein? Eric says, "Hi, thank you for all your work, it's excellent and I appreciate it. Question one, do you have any tips for eating enough protein from whole foods, while I don't regularly count macronutrients when I do try to get one gram of protein per pound of lean body mass, I find it difficult to eat that much food. If I achieve the target protein one day, the next day, I'm not interested in eating. I consider protein powders a bad idea because they seem like exactly what we're trying to avoid, manufactured out of context and hyper palatable. Question two is eating this much protein even a good idea. Longevity circles appear to have some fear over protein consumption in relation to mTOR signaling and cancer. At the risk of falling into binary thinking about a complex subject, what are your thoughts on balancing the benefits of more muscle in older age versus cancer prevention?"

Nicki: And then he gives some background he's 42 years old, 167 pounds, no known major health issues and his main goals are happiness, health and robustness in strength throughout the rest of his life.

Robb: So question one, how do you get enough protein from whole foods, so he's shooting for like 160?

Nicki: He is 167 pounds.

Robb: Lets just call it 170, so we need 55 grams of protein it let's say three meals a day. So one question is how many meals day is Eric, eating? Three, I think it's fine. People freak out that, again people are so in this anti-mTOR deal and fasting is the way and OMAD and all that and then it becomes impossible for actually to eat enough protein in calories and nutrition and again being metabolically flexible. If you've got a travel day, and you're only going to get one meal that day, then it's great to have the resilience to be able to do that when times are challenging.

Robb: But I think people take that and then like always they just take it to these extremes. I think I've mentioned this before, but it's worth mentioning again, I published my first article in the performance menu about intermittent fasting in 2005, and did a series of those throughout a couple of years. But by 2006, I deeply regretted releasing that thing. Because the people who were willing to intermittent and fast were folks that were doing CrossFit six days a week, twice a day, the recovery day was hot yoga with a weighted vest hike, they ate five grams of carbs a month and they couldn't figure out why they had no libido for six months, and their hair was falling out. And it's like, Holy smokes, man. All of that is good. All of it together is not good.

Nicki: Right.

Robb: It's like little doses here and there. So, getting adequate protein three meals a day is completely reasonable. If you want to do a little time restricted feeding, that's great. Did he mention what his macros are that he's eating correct.

Nicki: Let's see here.

Robb: Low Carb, paleo sweet potatoes on days with CrossFit and someone workouts. So that's one thought is sometimes just getting enough carbs can bump up your appetite a little bit. And again, if you're not specifically going for keto, for some specific reason, like you feel better or whatever, eating a few more carbs can make you a little hungrier. And so that may actually help you to eat enough. Similarly-

Nicki: Do you think maybe he's not eating enough carbs given him enough carbs given his activity levels.

Robb: He may not be eating enough carbs. So that could be a piece another strategy. So think about getting enough carbs one and maybe not just training days, maybe eat a little bit more carbs on training days, but maybe just more carbs in general. And again maybe you front load the carbs or something so we get a little bit of metabolic advantage out of the early time restricted feeding. But definitely make sure you get enough protein at each meal, like 55 grams, make sure it tinker with adding some more carbs in and maybe change the variety a little bit so that you're getting a little bit more palate experience.

Nicki: And wondering how. Sorry go ahead.

Robb: Real quick on that palate experience thing also, maybe prep two or three types of protein have some beef, have some chicken, have some fish or shrimp or something, and then make your meals a combination of all those. And then within the meal, you're getting a different palette experience. So you're getting 20 grams of beef, 20 grams of chicken 20 grams of shrimp, and in it is way easier to eat the full allotment there.

Nicki: And then doing things, salting your food Sriracha I eat Sriracha on almost everything I love Sriracha.

Robb: You were trying to put Sriracha on my head the other day, I thought you were going to eat me or something. I'm kidding.

Nicki: So yeah, figuring out your point is good about having different varieties of protein. So you're not trying to work your way through-

Robb: 55 grams of beef or chicken is tough. Even if you have a whole chicken, you will find that if you grab some thigh and some breast meat, it's going to be easier to do-

Nicki: Than just the breast.

Robb: And just doing that. So we've been recommending that to folks in the resets to have a variety of proteins available.

Nicki: Mm-hmm (affirmative).

Robb: On that second question, is eating this much protein a bad idea? I absolutely do not think it's a bad idea. I am definitely one of the standouts on this, folks like Peter Attia, FoundMyFitness Rhonda Patrick, the really geeked out on fasting and this kind of fear of mTOR, and I don't want to mischaracterize what their positions are. But I see this in again, the talk that I gave Longevity: Are We Trying Too Hard, I really got in and unpacked this stuff. And again I've been tinkering with this since 2005 doesn't mean that I'm right. But I really thought that there was some holy grail waiting at the end of some fasting and protein cycling. And I think that there's good stuff there.

Robb: But when we look at that, at things that we can really take to the bank, we know it for sure. Well, Ken Ford, just forwarded me a paper yesterday that the aging adults with the most muscle mass live the longest now it doesn't necessarily mean that you should be a pro bodybuilder but within a general population in the authors of the paper made the case that we instead of focusing on weight loss or even body mass index should just focus first on getting muscle on these people, which is a really interesting idea. It changes the whole orientation and we saw this being beneficial in the gym where it's like, "Hey, just get strong. Doesn't feel good to be strong." And long behold the decks, do some mobility work follow Basis and get some Kinstretch.

Nicki: And then to get stronger you want to... How do I eat to be even stronger then sort of changes away from needing to lose pounds to how do I improve my performance.

Robb: And we've talked about this before, but it always bears repeating, we did not have disordered female eating in our gym, it didn't exist. Because if somebody showed up, and they were doing great and then they started sucking, it's like, what did you do? I haven't been eating right and I haven't been eating enough protein. It's like, do you want Sally, to continue kicking your ass, do you want 20 pull ups and they are okay. It short it all fell into place because it was performance oriented. So epidemiological in

nature, but growing and very robust. It paints this picture that as we age we need more protein not less.

Robb: The folks with more muscle mass do better. People will counter this and say, "Well, the short fast don't take that much muscle mass off and in," particularly if you're keto adapted and whatnot. And I'll kind of buy that. But again, I think people have just gone crazy on this. And it's-

Nicki: Some is good, more is better.

Robb: Absolutely, clearly that works out all the time. And in the thing that I keep going back to we know that lifting weights is... So in the talk, the thing that I unpack is that because of different genetic features, and the biology of humans and comparing an ancestrally appropriate diet versus a lab chow diet, it may be possible that all of this calorie restriction benefit that we see in animals is only due to the fact that they're being fed lab chow. And it's protecting them from the shitty lab chow diet. And again, in the talk I really go through in detail it well, I'm doing a sloppy job on it here. But there's been very little done in feeding animals, a species appropriate diet and comparing calorie restriction.

Robb: But the few times it's been done, the animals fed a species appropriate diet and calorie restricted live shorter lives. So that's just this really perplexing thing, there's another paper that makes the case that to get the benefits of calorie restriction, specifically for longevity, you have to implement it in childhood, you have to run it your whole life. And that would mean that you would be short, hypogonadism whether male or female, so low or no sex drive, you would be chronically cold all the time. And you would have to run this your whole life. And you might get six years of additional life out of the whole thing.

Robb: It's not going to double your lifespan, we're not fruit flies, none of that stuff applies to humans. And if people want to dig into this, look at the genetic reaction norms of longevity in humans. And again, this is stuff that I unpack this paper. So by contrast, we know that exercise gives people at least three years of increased life lifespan. And the authors of the papers have looked at that said that it's likely more but it's difficult to de tangle all this stuff. So you've got a big chunk of that benefit already. Adequate sleep adds two to five years of lifespan. And now I don't know if these things are totally additive, do you get three here.

Nicki: Three plus two.

Robb: But you probably get six months here, I mean the shit starts adding up.

Nicki: Then you get to enjoy your life, you're not freezing all the time you actually-

Robb: Yes, so the thing that I'm looking at is what can you do now that we are pretty sure improves health span, let's just say health span, and absolutely improve your quality of life today. And then there was the piece around getting adequate sunlight and this one just blew my mind. But people who get adequate sunlight as reduced morbidity and mortality as the difference between a smoker and a non-smoker, think about that for a minute. And this is stuff that is known we can take it to the bank. All of us have a risk profile related to let's look at the top nine killers, neurodegenerative disease, cardiovascular disease and cancer. We all have a potential reality there.

Robb: It is completely speculative, that varying amounts of fasting will modify that risk profile, we don't know that it will modify the risk profile. We know for a fact that simply not over eating modifies that risk profile. And this is again my default back to find something you can do an ancestral type diet, maybe do some time restricted eating, maybe do a little bit of fasting here and there. But all of these other things are potentialities. Every single person alive is getting guaranteed to experience sarcopenia as they age that is guaranteed.

Robb: If you've got an absolute known risk that accelerates with age, and we know that resistance training and higher protein intake mitigate that risk, and we know that the people who carry more muscle mass have less likelihood to develop neurodegenerative disease and cardiovascular disease and cancer, then it all just starts lumping together where it's like, do it maybe once a month you do a 72 hour fast or something like that. But I am just so incredibly underwhelmed with the case to do much more than that, again having the context of get adequate protein, that's probably more than what most people think is adequate, although it's much less than what it's not eating 300 grams a day for the vast majority of people do a resistance training program.

Robb: I know I'm beating this thing to death. But if people are wondering, should I do an additional day of fasting a month and you're currently only doing two days a week of resistance training, do a third day a week of resistance training or sprint work or throwing shot puts, some sort of like explosive rate of force development thing or something, I think that will improve your quality of life and your health span better.

Nicki: Bigger return on investment.

Robb: Better return on investment a more guaranteed return on investment. And I couldn't be wrong on this... The funny thing is that so much of what's getting sold to people is this kind of hope and a dream around this whereas these other things are kind of guarantees. If you build a bunch of muscle mass in your back and spine, you don't develop osteoporosis of your vertebrae, your discs are better protected and again, some mobility work needs to be introduced into all that stuff. I'm a great example of that, but I'm not too sure what more to-

Nicki: Long story short, Eric, eat the protein.

Robb: Eat the protein, figure out how to eat the protein, maybe eat some more carbs to help you eat the protein get some variety of protein to help eat the protein and check out the Longevity: Are We Trying Too Hard talk and I really would love people to do as detailed a rebuttal of what I put together in that, to tell me how I got it wrong. And within the few circles that I've been in the only public talk I think I gave with that last year was at Metabolic Health Summit and I had some people who had read aces about it, but they didn't have good rebuttals to it they kept doing the same circular logic and these were folks that really love their fasting, really love low protein ketogenic diets.

Robb: And not to be a dick but they looked like a hot mess. It was hard to tell if they were like ancestral health eaters or raw vegans because they looked dark circles under the eyes, no muscle mass gont.

Nicki: Gont.

Robb: They didn't look like they would handle themselves in a fight well. I think that biological thing of whether the person's male or female you look at them like, I wouldn't want to tangle with that person like they could probably cause some damage to me. I think that

that tells you something on a macro level whereas when the person and you can always tell it or read a book by its cover, there are people in mixed martial arts and whatnot that look very unassuming but can absolutely trash you. But there's something there, there's definitely something there. And the irony in all of this is it just simplifies things, lifting weights two to four times a week, have between two and three meals a day, make sure that you get adequate protein all the time.

Nicki: Get outside in the morning.

Robb: Get some God damn sun on your skin. The next question is about tanning beds, I think that those are the really known take it to the bank things and I think the rest of this stuff is super speculative. It's interesting, I may end up being wrong, but I'm definitely hedging my bets in this direction, so I'll probably die tomorrow. But I won't be here to deal with the aftermath you will.

Nicki: There you go. All right. We have a question from Hannah, on tanning beds and vitamin D. She says "Hello I'm curious about supplementing sunlight with tanning during the winter. I live in Northern Colorado so vitamin D is something I worry about for half the year. Rob, is mentioned using tanning beds and passing but I'd love to hear more in depth information if possible. Thank you for all that you do, it is sure appreciated."

Robb: Hannah, this is super speculative. But in digging around this stuff when you look at, say like the rates of... So really backing up a bunch. There was a paper maybe 15 years ago that made the case that when people get safe, reasonable sun exposure, although there is a small increase in say, skin cancer risk the benefit from both vitamin D and the other processes that are involved in sun exposure massively outweighed, it reduced the risk of all these other cancers so much that it was a massive win.

Robb: So that's kind of a piece to this thing. When you dig around and look at the literature on tanning beds and skin cancer rates. It's pretty high and it generally makes you kind of like, "Whoa, I don't know if you want to do that." But I've never seen papers that asked the question, what is the duration that people are doing in the beds, both the duration and the type of bed.

Nicki: Mm-hmm (affirmative).

Robb: So generally, when virtually everyone who uses a tanning bed uses it to get a tan. And to get a tan, you need to progressively overload the system and it's not to say that having a tan is necessarily an inherently bad thing, although with there is some risk increase associated with that. But there's this whole other side to this where you can get UV exposure such that you don't really get a tan because whatever your complexion is there is a safe reasonable dose of UV light, and it's still just burned into my memory this back and forth on my Robwolf.com, Facebook page where this woman chimed in.

Robb: And I looked at her profile and she's a ginger and her kids are gingers and I think the father's a ginger redheads and super light complected and she would just read me the riot act, that this was so irresponsible to suggest this stuff. And I was like, "Listen, mom of gingers, maybe your safe dose is two minutes, but that two minutes is going to be plenty for you and likely non injurious," whether it's sunlight or whatever. I'm 10% Native American and not in a what was it Elizabeth Warren, thing a legitimate 10% deal. And I can get fairly tan you're Italian you can get tanner than I do. And so there's a spectrum to all that stuff.

Robb: There's the bed types which you have a low pressure UVA, UVB type a bed which is actually the low brow cheaper beds that are used in tanning salons. And then you have the high pressure beds, that you only need to be in there five minutes, the low pressure bed you can stay in for as long as 20 minutes, you're supposed to build up over time. What I do is, I've tinkered with this, I started out at five minutes, and I went 2, 3, 4 times a week for five minutes, and then six and then seven and I've capped off at 10. And I just stay at 10 and I've got a little bit of browning to my skin. But I actually have less tan than I've had in past years, although I've had more consistent sun exposure.

Robb: But when I'm out in the sun, I use the Dminder app which consider you input what your skin type is, it's able to figure out what your latitude longitude is, and then it knows what your weather is and then it will give you a prescription for the day. And because we are in Texas, we're low enough latitude, we can still get vitamin D on some days now we're not far enough north, there's just no vitamin D potential all but it was interesting, I felt far better this year, but actually have less tan because I wasn't trying to tan I was just staying out there to get my maximum vitamin D dose.

Robb: So I think that's a lot of these moving parts. When we look at the epidemiology on tanning beds, nobody has looked at it, who is the subsection of people that are only using the low pressure UVA, UVB beds and they're staying in for half the amount of time that they could otherwise be in there. So they are solely using it as a mental health and a vitamin D aid. I haven't been able to find any information on that. So all of this is pretty speculative. And when you consider what the epidemiology looks like with tanning bed use writ large. It's scary, it's still concerning for me.

Robb: Every once while I'm like maybe I'll bump this up to 12 minutes instead of the 10 minutes and I'm like, I'm doing good with 10 I'll just stick with that. Again, more isn't better, better is better. And I've started to vary that a little bit even though I worked up to a pretty consistent 10 minutes, now some days I'll do five and then another day eight and then another day 10 and I cycle within that whole thing so that there's variability within a given day. So you think of anything else we need to cover on that. And again Hannah, I will say that that part is pretty speculative. I'm really reading between the lines of the research because the folks looking at this are not really asking, it's binary do you tan or do you not tan?

Robb: And I don't think that's very helpful when there's this huge spectrum of skin type and how long you can effectively be in the any given UV source.

Nicki: Reasonable exposure.

Robb: Yeah, and what's reasonable for you and all the rest of that stuff.

Nicki: Okay. All right, It's time for our Healthy Rebellion Radio trivia. Our episode sponsor Drinkelement is giving a box of element recharge electrolytes to three lucky winners selected at random who answer the following question correctly. Robb, what was your favorite Christmas gift?

Robb: Easy. Well, the air fryer is my best one, I got some very snazzy slippers as well, which are very cool, but the air fryer has been a godsend.

Nicki: You can even use it as standing desk.

Robb: I used as a standing desk, that was a perk that I had not intended at all. I hope that is not the end stage of my standing desk career. But the air fryer has been badass.

Nicki: Yeah, one of our rebels Alison Waddington, she has throughout the whole last year was posting recipes and things that she'd made in the air fryer. From chicken wings to brussels sprouts, broccoli, to you name it. And finally, we got one.

Robb: We stepped out and it was amazing.

Nicki: And I have to say it does not disappoint.

Robb: Yeah.

Nicki: You can do bacon, chicken, beef.

Robb: What have we done in there? We've done pork loins, I took a roast that otherwise it would have been a tough sell for the girls but I quartered it. And then olive oil, some salt and pepper a little bit of garlic powder. And it just gets such a nice crisp on the outside and cooks things so uniformly and easily that and I still because it was a little bit of a tough cut. So I cut the pieces up a little bit small for the girls. They crushed it, we did some hamburgers in there they turned out great some lamb burgers actually.

Robb: I did a whole chicken in it, I had to cut the chicken in half and put it in there. The girls when they just looked at it because it skin was like this golden brown. We rubbed it with olive oil again to help brown it up. They were "Dada that looks like the best chicken ever." And they literally ate the whole chicken.

Nicki: Yeah, that's definitely a time saver because you don't have to monitor. So if you have other things that you need to attend to while you're trying to prepare a meal, it definitely makes handy.

Robb: Should we mentioned the brandy even though we have no.

Nicki: No.

Robb: No.

Nicki: No. I think all of them are good.

Robb: Okay, we're going to get that question.

Nicki: We will lets see. I think all of them are good. I don't think I don't have any ties to any brand.

Robb: Do your research, we did.

Nicki: I just got one that had a lot of favorable reviews.

Robb: Good enough.

Nicki: So the answer to the trivia question is the air fryer and to play you just need to go to Robbwolf.com/trivia. Enter your answer and we will randomly select three people with the correct answer to win a box of electrolytes from drink element. Cut off to answer this week's trivia and be eligible to win is Thursday, January 7th midnight winners will be notified via email and also announced on Instagram as well. This is open to residents of the US only.

Nicki: Our fourth question of the week is from Jamie, wondering about creatine when you're over 40 "Hi, Robb, I'm a huge fan of been reading your books and listening to your podcast for years. I am just about 100% paleo and experiment with keto as well. You've definitely helped me improve my health and overall fitness and I greatly appreciate that. On your podcast I heard you say that creatine is a relatively safe supplement and you give it a thumbs up. The co-owner of my CrossFit gym has a PhD in microbiology and recommends that people don't use creatine supplements since doing so can impact the body's ability to make creatine on its own. Further, she said that people over 40 should especially avoid creatine supplements since the kidneys start slowing down at that age and creatine can impact to the kidneys. I'm in my late 40s now and I've seen the benefits of creatine supplementation when I was in my 20s but I'm concerned about starting it up again at this age. What are your thoughts on the subject, Jamie?"

Robb: So I put a link in here and we'll have it in the show notes a review of creatine supplementation and age related disease more than a supplement for athletes and I guess to unpack the concerns of your CrossFit coach, creatine is manufactured by humans but it appears to be a little bit like taurine in obligate carnivores is a vital nutrient they don't manufacture it. In humans, it's a potentially conditionally necessary nutrient. So different conditions can increase our need for it and there's a good case to be made that we need dense animal source proteins to get it.

Robb: We tend to get creatine from red meat, it's possible that a significant slice of the performance benefit of eating things like red meat, maybe due to the creatine content, there's other good stuff with it iron and dense protein sources and all that type of stuff. When you look at what creatine does particularly supplemental creatine in that, like five gram a day range, hypoxic brain injury is dramatically mitigated, its function as an antioxidant. It's a signaling molecule creatine is absolutely not injurious to the kidneys, elevated creatinine is a sign of kidney function going sideways but that is because of metabolic arrangement and too many carbs for people who don't handle carbs well.

Robb: And again they unpack all that in this paper creatine is... Some people are good responders to creatine they will notice an improvement and say they're five rep max back squat or something like that as luck would have it in a non responder but non responders may not see a specific performance boost but some of these other metabolic benefits still are in there. So I am dumbfounded why one would not supplement with creatine and it doesn't need to be anything fancy, cheap creatine mono hydrate five grams mix it in your element go to town. Are you okay? Nicki, swallow a raccoon.

Nicki: I tickled on my throat.

Robb: So I completely disagree with your coach's assessment on that and I think that this paper would lay out that case pretty thoroughly.

Nicki: Okay, let's move on to our final question this week from Jay, on muscle gain.

Nicki: He says "Hi Robb and Nicki, understandably the weight loss questions get a ton of focus. But I would love to hear your thoughts on how to optimize diet and training to gain lean muscle mass. All my friends tell me quote, you just need to eat everything and anything unquote. But I really don't want to gorge on ice cream bread and other processed garbage. I realized this would be a quick way to achieve a caloric surplus and add size but I'd prefer a cleaner and healthier bulk approach even if it takes longer. I would love to hear any advice or suggestions you to have on how to identify the proper caloric and macro needs and then strategies for hitting those numbers with cleaner sources of food

and any thoughts on a keto gains approach versus a high protein approach like Ted Naman, those seem to be the two popular trends right now. Context I am a 28 year old male 175 pounds I work a desk job, lift weights four to five times a week occasionally mix in Sprint's I hit workout in Asana. Thank you for all you do."

Robb: One thing really quickly Ted Naman's approach and the keto gains approach are remarkably similar. Ted, definitely focuses on this notion that if you already have a lot of body fat, all you need is low carb you don't need high fat keto gains is completely in the same camp, they always talk about protein as a must carbs are kind of a bottom floor.

Nicki: And that is a lever.

Robb: That is levered, you now use it as per your needs. It depends on the person, but gaining muscle mass can be a bastard I would wager that in many ways, it's harder to do particularly if you want to do it in a-

Nicki: Clean way.

Robb: Pretty effective way it just takes a long time, it takes a lot of work. Was it was Eric Cressey, great strength coach. He mentioned how he gained 20, 25 pounds of muscle maybe even a little bit more than that, but it was over like a 10 year period. And he lean and jacked and everything but he just he followed this power lifting template for the most part and he had a good dietary approach and you would gain a little bit and then lean out and gain a little bit and then lean out and I think that kind of a zigzag approach to making a goal of gaining five pounds and then trying to recompose body composition is good. So you're going to have a caloric surplus for a period of time and maybe even five pounds is too big of a jump up.

Nicki: And to do that as eating like paleo carbs, sweet potatoes or even some grains, maybe like rice if he tolerates it.

Robb: Yeah, you can play with that, I find it pretty easy to hit a good caloric surplus if there's some potatoes and sweet potatoes and maybe some rice and some coconut oil and stuff that thrown in it's damn easy to hit a caloric surplus with that, folks will still kind of poo poo that. But I think that's a reasonable way to do it. There is a reality that even within the potato, sweet potato thing, potatoes less than sweet potatoes. But at some point, your digestion just gets bombed out by fiber and you just can't digest that much bulk. And this is where some of these really huge bodybuilders and power lifters eat a remarkably refined food diet because the amount of calories they have to eat there's no there's no room, there's no digestive capacity left to deal with a bunch of fiber.

Robb: Getting your hormones checked, like he said, He's 28 years old. So we should be good to go on that. But I think just checking a baseline on that and make sure that you're hopefully in the upper levels of what's normal for males. So we'd like to see something in the eight hundreds for total testosterone or something like that. If you're not, then we should look at zinc and magnesium and some of these dietary factors that can help. There's other things like Arimidex and Clomid that can help boost testosterone, but that starts going down a whole other rabbit track. But if hormones-

Nicki: Assuming that sleep and sunlight and all the standard stuff goes into helping somebody put on and retain mass.

Robb: And then just slow and steady wins the race and again I would set a goal of let's just... So he's at 175 pounds, let's just say he's going to set a goal, he needs to be at a caloric surplus. So this is kind of rough numbers. But for maintenance, people usually need to eat somewhere around 15 to 16 calories per pound of body weight. There variability there, but that's a pretty good place to start to gain people need to be about 19 to 20 calories per pound. So and to lose usually are somewhere between 10 and 11 calories per pound. And again, there's a spectrum within all that stuff.

Robb: So what I would recommend is probably ramping up calories over a two week period to that 19 to 20 grams or calories per pound of body weight, maintain that maybe for two months, shoot for two to maybe three months, maybe every other week drop calories back down to baseline, because your body will adapt to a caloric surplus and you just get hot all the time because the body starts burning off heat. And so it's as if you're not actually eating the excess calories.

Robb: Some people will even do some stuff or they'll eat at a caloric deficit for a couple of days or a week emits that. So two to three weeks of hypercaloric a week at either maintenance or even hypo caloric just to kind of zigzag things and ride that until you hit a say a five pound increase in body weight. And then go back down to maintenance and just focus on body recomposition. So whatever body fat you gain, try to slowly tweak things so that you.

Nicki: Lean out a little bit.

Robb: You lean out a little bit, go with that for three months and then do another push upwards because when you do that next push upwards. Now you're 180 pounds, so you need to eat even more calories and I wouldn't say it becomes harder and harder but it does become harder and harder. And some people are just really good at building muscle mass and unusually you know if you are so and it's not to say people can't do it, but looking back I think some of my digestive problems or that I just hammered so much food for so long trying to be at a higher body weight and really what my body wanted to be in additional things like gluten intolerance and whatnot, but I was just crushing the food and I don't think out of the gate that I was born with awesome digestion. So you can do some things like that like digestive support, like now food super enzymes with all meals so that you're digesting all as much of the food that you take in as possible.

Nicki: All right, Jay, let us give that a shot. And then write us back and let us know.

Robb: And join going rebel reset if you want to and do this all amidst the rebel reset.

Nicki: With all of us. I think that's our first episode of 2021, that's a wrap.

Robb: Cool.

Nicki: Thanks everyone for joining us, please support our show sponsor Element for all your electrolyte needs, go to drinklmt.com/Robb grab your element electrolytes sample pack for just the cost of shipping again, you'll get two sticks of citrus salt, raspberry salt, orange salt and the raw unflavored. That's D-R-I-N-K-L-M-N-T.com/R-O-B-B and remember that is good through January 31st 2021. All right guys, here's to a happy 2021 for road bound.

Robb: Indeed, take care.

Nicki: We will see you next time.

