

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.

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Warning, when Rob gets passionate, he's been known to use the occasional expletive. If foul language is not your thing, if it gets your britches in a bunch, well there's always Disney+.

Robb: Welcome back, everybody.

Nicki: Hello, this is Episode 167 of the Healthy Rebellion Radio. Yeah, we are here. We are here. We are motoring. It's been kind of busy. I know. Singing to the choir, because I know this is the plight of all modern humans it seems, is just the never ending...

Robb: Bizitude.

Nicki: Bizitude. Especially those with children and other beings to care for.

But we're here, we're back. Sorry, we missed last Friday. We're doing what we can. We do actually have one sick kiddo this morning who woke up under the weather, but I think that's just par for the course this time of year.

She's usually a pretty resilient kid, but she woke up this morning dragging, not feeling herself.

Robb: Well, she had a high motor weekend. We had one of her friends come over and all the girls were up pretty late, relative to what they usually do.

Nicki: Two nights in a row.

Robb: And then...

Nicki: Gymnastics for two hours on Saturday.

Robb: Came home, ate, and then did the trampoline park-

Nicki: Yep.

Robb: ... For another two hours and might've dug a little bit of a hole.

Nicki: A couple late nights. So anyway, let's see. We've also... Zoe found our first bear scat in our new-

Robb: The back 40.

Nicki: ... Back 40 here. So that's something that will be fun to keep an eye on.

Robb: The front chunk of the property is just pasture that you can see everything and then you cross a creek and you end up in super overgrown cottonwoods and berry bushes and all this type of stuff.

And you can't see anything back there, so we were pretty emphatic that if they go scooting back there, they have to take the dogs with them. And that, I think sealed that.

Nicki: She said big, big pile of scat with berries or-

Robb: She said berries.

Nicki: ... Berries or something in them. So anyway, we need to get our game camera up so we can-

Robb: Document all that.

Nicki: ... And see what kind of critters we have perusing-

Robb: Indeed.

Nicki: ... Mm-hmm. Let's see, what else do we have upfront here? I'm trying to think. It's already the end of September. It's kind of crazy. Winter is coming. I feel it. Fall. Fall is turning.

Robb: It's turning something. Oh, we will be glad when the first freeze happens because we are besieged-

Nicki: Oh, this is an interesting thing.

Robb: ... With flies.

Nicki: Yeah.

Robb: We got flies, Tony.

Nicki: We got flies, Tony. And we mentioned that little clip before.

Robb: We mentioned it before. It's probably worth plugging it back in the show notes.

Nicki: It's a hilarious little clip, but boy do we have flies. This is a different

situation than we had in Kalispell or anywhere else we've lived where there are always flies, especially if you live around anybody that has horses or anything.

But these are apparently called a cluster fly. They don't lay eggs or larva in decaying food the way that a normal fly does. They actually lay them in earthworms outside, but then they try to get in to kind of stay warm and over winter.

These flies don't have the standard life cycle of approximately-

Robb: 28 days.

Nicki: ... 30 days that the standard fly does. These adults can live for one to two years, apparently. It's a thing. So anyway, we're trying to figure out what to do with our-

Robb: We have hundreds of them.

Nicki: ... And you can vacuum and get rid of all of them and within minutes you've got... And they're dying. They die on your window sills and on your floor, and then you're just constantly vacuuming flies.

Robb: And a bunch of them don't really die. They'll be laying there all balled up and they look pathetic and you go to sweep them up or something and they burst back into life and take off.

Nicki: It's crazy. And somebody was telling me it's a Bozeman thing, it's not a... They're like, "It's not just your house. It's a thing here."

But I've never, ever heard of a cluster fly. I had to Google it. I'm like, what is going on with these flies? So yes, we've got flies, Tony. And if you don't know what, "We've got flies, Tony," is referring to, please check the show notes. I will include a little video, which is quite humorous.

Robb: Not safe for work, but hilarious.

Nicki: It is quite humorous.

All right, hubs, what do we have for our news topic today?

Robb: Kirsten Johnson pinged me this, but I had seen it prior to her firing this off to me. But it's Blood Biomarker Profiles and Exceptional Longevity: Comparison of Centenarians and Non-centenarians in a 35-year follow-up of Swedish AMORIS Cohort.

So a retrospective study, but it looked at all kinds of different things. Basically metabolic biomarkers of the very long-lived versus other folks. And it's interesting. These centenarians tended to have fairly high total cholesterol levels, about 240 if not a little bit higher.

What they did not have, uniformly, was high blood glucose levels, high inflammatory levels, high urate levels. Basically, these folks were really metabolically healthy, had cholesterol and lipid levels that we would be potentially concerned with, but didn't seem to be an issue for them.

Some folks have suggested that there's a certain survivorship bias here, that maybe lots and lots of people with similar profiles end up dying and not making it, and maybe there is some sort of a benefit that's conferred here, but maybe some people don't make it through that aperture of time.

But I think it still makes a pretty strong case that, all else being equal, good metabolic health is probably pretty important for living into advanced age, living into advanced age well, and avoiding everything from cardiovascular disease to dementia to hosts of different types of cancer.

So it's a pretty accessible piece and it's open access. So we've got links in the show notes.

Nicki: Awesome. Very cool. Very cool. Okay.

The Healthy Rebellion Radio is sponsored by our salty AF electrolyte company, LMNT, and it's getting a little cooler. Fall is upon us, and I had a timely email from an LMNT customer and a podcast listener this morning. And this is from Jenna.

She says, "Hi friends. Not a question. Just sharing. Chocolate LMNT plus canned coconut milk plus local honey plus hot water equals mind-blowing hot chocolate."

I have not yet tried this because she just sent this in this morning, but it looks amazing. And we think... We have a neighbor that just brought us a jar of local honey right from her backyard-

Robb: And it's incredible.

Nicki: ... It's incredible. So Jenna, I will be trying this. Thank you for sharing, folks. If you want to try it, share Jenna's recipe, I think it will also translate quite well with the chocolate caramel that is coming out in just a few weeks.

So winter's coming. No better way to enjoy your winter activities and stay hydrated than with a hot cozy beverage that includes LMNT. You can grab yours at drinkmnt.com/robb.

That's drinkmnt.com/robb.

Robb: Cool.

Nicki: We have two questions for you folks today. This first one is from Justin on

obstacle course race training and nutrition.

"Hey Rob and Nicki. Big fan, love all that you do for your listeners. My question is if you were to put together the best training plan for running an obstacle course race such as Spartan Race or Savage Race, what would that look like? I usually do the 10K to half-marathon distances, if that helps to clarify the distance.

I currently attend Orangetheory fitness classes four times per week, Monday, Tuesday, Thursday, Friday. And then do a long run on Saturdays. I was hoping the consistency of doing Orangetheory for almost exactly one year would really help me get into obstacle course racing shape, but sadly, it just hasn't made that big of an impact. I just started incorporating the long runs on Saturday back into my training and realized once I did, the running from the classes really hasn't changed how well I run and I still feel my heart rate is much higher than I'd like, even at slower paces.

I'm not sure if CrossFit would be a better option since I've never dived into that arena, but I'm very open to any suggestions. Nutrition-wise, I try to get my body weight of protein daily. My carbs are around 220 grams and fat around 65 grams. Those numbers were given to me by a nutritionist who I did a consult with a few weeks ago. Again, any tips you guys have are very much appreciated."

Robb: Just pretty straightforward training. What is it that said principles specific adaptations to impose demands and... Man, 10K to a half-marathon distance is a lot of running. And usually the obstacles themselves, at least, in these scenarios are not that strength dependent, not that technical.

They can be hard, but it's something that ideally you would train. It'd be different than say like a Ninja Warrior type thing where they can be incredibly technical, like super grip dependent, super high degree of accuracy needed for these long land and stick jumps and stuff like that so you don't fall off of items.

Obstacle course racing is just a grind, just got to keep grinding, and the bulk of it is running and so you really need to do more running. There's just a certain amount of efficiency that comes about from doing that particular activity. If we really wanted to get good at rowing and setting the world on fire with the Indoor Concept2 rowing competitions, you have to do some amount of rowing.

You could be a tall, strong person with good general cardiovascular conditioning, say, from doing running or doing swimming or something like that. You could probably post a pretty good score for a beginner, but then if you want to start climbing the ranks and doing better, you just have to do more specific training.

And on that, there's just so many different ways to slice and dice that stuff. That's where finding either a group or an online coach that can assess where you are and be able to make a recommendation on volume and intensity,

distances. There's certainly going to be a need for tempo work. There's going to be a need for sprint work. You'll still in the background need to continue doing your strength and conditioning, your mobility work, so that you just function well and so that you've got that low gear for being able to do the more strength oriented activities.

But you're just going to have to run more. There's just no two ways around it.

Nicki: I think there are quite a few obstacle course race, like Spartan training groups-

Robb: Absolutely.

Nicki: ... If you live in an area that's got a decent population, I think. And then you're with other people that have done them before that have... Maybe there's a coach that can help progress you through your goal for your specific distance that you're shooting for.

Robb: The Orangetheory stuff is nice because you show up, somebody else coaches you through the workout-

Nicki: In an hour, you're done

Robb: ... In an hour, you're done, you're in, you're out. You usually get some warmup and some cool down. It's awesome as far as that goes.

But if you want to specifically get better, you're going to have to make the training more specific. The generalist approach, whether it's CrossFit or Orangetheory or what have you, it will generally leave you pretty prepared to do something like this. But you just got to... Especially the running part is so critical, you're just going to have to log more time on that.

Nicki: What are your thoughts on his nutrition?

Robb: If that's fueling him, that seems fine.

Nicki: He doesn't really say what his height and weight are.

Robb: Weight and all that.

Nicki: Yeah.

Robb: So it's hard to tell if he's getting adequate recovery on that.

Nicki: And how he's feeling after training on this protocol.

Robb: Another plug for the Train with Morpheus platform. It'll give you your readiness score each day. You can wear it during your training, log your volume

and intensity. That will get factored into the overall algorithm.

I've just found that thing indispensable in better tracking and mapping what my training is mainly for jujitsu, but just generally for trying to stay in decent shape. And what I found is that I was doing too much low intensity stuff that I actually needed to step up a little bit more higher intensity here and there.

Nicki: It's also great for the type of personality that's always wanting to push, push, go hard, go hard. It does your heart rate variability. It just asks you how your sleep was and how you feel, muscle soreness, et cetera.

And it might say, "Today, you need to go easy."

And, I mean, it can't make you go easy. You could still train really, really hard. But I think for some folks that are just always want to put the car in gear-

Robb: Sweat angel or nothing. Yeah.

Nicki: ... Yeah. It's good. Your body does need recovery days. Everybody knows that. But sometimes seeing that number and being like, okay. Today I'm not going to go so hard or I'm going to stay within my bounds here.

Robb: There's so many people like that and I think I was that person for a long time and broke myself to such a degree that then I was maybe a little bit geriatric in my approach after that. And it was actually pretty clear that I needed some. And I mean we're talking about for my weekly training volume, 15 to 20 minutes total, in a conditioning zone where my heart rate is significantly higher. It punctuated points, so that's spread out across the whole week.

And then I have about 180 to 200 minutes a week that I try to accumulate in that zone two level. It's a lot of time, a lot of volume on that, but I feel really good. Things are going pretty well, but it's interesting. I was just afraid of doing any amount of intensity and overload, but I definitely needed some. And as I've done it, my fitness has improved even though I'm not dead yet and I'm still getting older. So, yeah.

Nicki: All right, Justin, I hope that helps, but definitely look into... If this is your jam, you really want to do obstacle course racing, find a group of folks that are doing that and jump in with them. There's probably multiple different groups depending on where you live.

Robb: For sure.

Nicki: Okay, our next question this week is on salt intake. Darren writes, "Hi, Robb and Nicki. I'm listening to you from Tasmania, Australia. I recently read *The Salt Fix* and I'm hearing a lot about sodium intake. I've been having a lot more salt recently and I've noticed a dramatic improvement in all health parameters.

Due to mainstream info, I'm struggling to accept that I should be taking extra salt. I eat a low-carb, whole food diet. I run a busy cafe. I do some cardio, some weight training. Quite active. I'm very lean. 52 years old, and my blood pressure is always around a hundred over 70.

My question is, are there any other long-term problems with too much salt other than high blood pressure? Thanks for keeping it real."

Robb: It's interesting when you look at the literature on this, one would believe that everything from cancer to loose morals to reading issues emerge from-

Nicki: Dyslexia?

Robb: ... Dyslexia. Too much sodium. And it's really hard to parse this stuff out because most folks probably do get too much sodium because they're getting a bunch of refined food. And so, within the refined food, they're getting a lot of sodium and no potassium. And I think that the bigger issue is the sodium/potassium ratio.

And without a doubt, from an ancestral health, like a hunter/gatherer perspective, we're probably tuned to get far, far more potassium than what we were getting generally. That said, in many people have made the case that because salt sodium is relatively rare in nature, that we shouldn't get more even on say a minimally processed like paleo type diet.

I don't necessarily agree with that. I think that there's... Interestingly though, I think there's a really self-limiting aspect to that. There are some examples of the Hadza doing persistence hunts where these guys will run some sort of animal down over the course of eight hours and ultimately... Oh no.

Nicki: You clicked accept.

Robb: ... Yeah, I clicked accept. Hopefully all this stuff is still working. I had a phone call go through to my computer. I got a new computer and usually I disable all that stuff and I haven't figured that out.

Nicki: And it said spam, and so he clicked... I was watching him drive his mouse over the... There's accept or decline, and he clicked accept.

Robb: Went to accept. Yeah.

Nicki: All right, back to the Hudza.

Robb: Okay. So, the Hudza. They'll run these animal, kind of a deer type animal, down. A spring buck, something like that. Ultimately get it with an arrow, but the bulk of the hunt is this guy just running it down. And these spring bucks are extremely fast, but they're good at sprints. So these guys will chase it, scare it from one spot to another, to another in the heat of the day, and just go after

them.

And then oftentimes after the hunt, they don't do much of anything for a week and they really rest and recover. And there's cultural reasons for it, but I think there's also physiological reasons. And I think one of the physiological reasons is that they do replete the sodium, but it's slow because of the nature of the environment that they live in, that is relatively low in sodium.

We tend to, if you're active, most people are probably more active than what their Paleolithic ancestors were, like getting out and doing Zone Two cardio every day and lifting some weights and going to CrossFit and doing jujitsu. It's arguable that we end up having an activity level that's higher than ancestral levels.

Nicki: Because we don't have the leisure time that hunter-gatherers had.

Robb: Yeah. And hunter-gatherers... And it's not just busyness. I'm talking about actual physical activity. And part of that necessitates a fueling that is different than what ancestral norms would've been, probably in total amount of calories and also with regards, I think, to sodium, particularly if you're really high motor athlete, hot, humid environment. Tasmania I hear is fairly hot and humid and all that type of stuff. So those are all going to dramatically increase your individual needs for sodium.

So if we're eating a minimally processed whole food diet, we're doing really well in not overeating, not having a tendency to eat hyper palatable foods, and we're going to end up getting decent micronutrients including potassium. And you almost certainly are going to benefit from supplemental sodium in that regard. And thinking back, I remember like Loren Cordain, a very brilliant guy and was right about many things and wrong about some things. He really hung his hat on the notion that modern humans, regardless of circumstance, should be consuming exceptionally low levels of sodium.

And I remember a ton of athletes, the paleo diet was pretty popular within the TrainingPeaks community, Joel Friel, who was also a fan of the paleo diet. But he also, in contrary to Loren's recommendations, recommended pretty high sodium intakes for his athletes.

Even within mainstream medical circles, it's understood that high motor athletes, heat, humidity, those sorts of things, their recommendation is seven to 10 grams of sodium per day. And again, if you want to only train once a week, then you could rely on the sodium that we just get background from our food. But if you're going to train multiple times per week, to say nothing of potentially doing multiple sessions per day, and it's hot and it's humid and you need to get your work done, or if you're a firefighter or a police officer or military or what we would call the industrial athlete, like a roofer-

Nicki: And you're working in hot attics doing HVAC installation or repair.

Robb: ... Yeah, you will need more sodium.

There's caveats there, and this is one of the things that I struggle with. The more metabolically healthy an individual is, probably the more sodium that they need just as a baseline. Only 7% of the population is considered metabolically healthy, so that is a thing. But even someone who isn't metabolically healthy and they're working as a roofer or an HVAC person... And some of this HVAC stuff and roofers, the surface of these roofs can be like 160 degrees. It's crazy how hot it is. And then the reflected heat and everything. They're going to lose a bunch of water, they're going to lose a bunch of sodium, and they're going to need to replete that even if they're insulin resistant and they're tending to retain more sodium and water than what they need.

In some ways they're arriving bloated like a tick to the event, if you're metabolically broken because you're just retaining sodium and water. But those are also the people who tend to pass out from low blood pressure because they get this massive fluid shift. So man, there's just...

Darren, there's a lot of moving parts to it, and I feel you on the... It's conspicuous being involved with LMNT and damn near every piece of medical advice that one can consider is contrary to what our base message is. But we're not telling people to just willy-nilly consume sodium ad nauseum. There's parameters to it. We even released a sodium calculator and maybe we'll remember to put that in the show notes too, and that helps you to zero in on potentially how much sodium you're going to need in a given day.

But I think you're okay. You got to monitor your own response to things. I remember when I was very sick and I was vegan and eating a ton of carbs and wasting away, I had a consistent 140 over 80, 140 over 90 blood pressure. And since I went low-carb and even while using LMNT, and sometimes I'll get five to seven grams of sodium per day from all sources, olives and all that type of stuff, I'm like a 110 over 65 most of the time.

So that is me, though. That doesn't necessarily apply to everybody. This is where we do need to do some tinkering and monitoring.

Nicki: And equals one.

Robb: One and equals one. My refrain has always been, how do you look? Do you feel? How do you perform? And then use some biomarkers of health and performance, or health and longevity really. And that's where just a blood pressure cuff and managing how you respond to a meal or a supplement, whether it's LMNT or something like that, or your own home brew or whatever, to just keep a track on that stuff.

Nicki: Mm-hmm. The medical, I think it's hard for... As we've talked many times on this podcast, is just so much of our dietary recommendations have been

wrong, so it's really, really hard for folks to know when you read something like the Salt Fix and that's completely at odds with kind of the mainstream medical recommendations.

So it's all good stuff and it's why we are here and why people just... You got to just keep reading and keep asking questions and keep digging.

Robb: Yep.

Nicki: This is kind of a short episode, folks, and mainly because it's all we could get to this week.

Robb: We've been running and gunning, yep.

Nicki: But any final thoughts on your end, hubs?

Robb: Nope.

Nicki: Nope?

Robb: No.

Nicki: You're good?

Robb: I'm looking at some sort of a kissing bug crawling through the window of my office. Fortunately, the ones in Montana are not like the Texas ones, so they don't carry Chagas disease, so I just need to scoot them outside and not get bit by them. But, yeah.

Nicki: All right folks, thank you for listening to another episode of the Healthy Rebellion Radio. If you do have a question for us to answer on the show, you could submit that at robbwolf.com on the contact page, and then there is a dropdown menu where you can select submit a question for the podcast.

We'd appreciate that.

Please check out our show sponsor LMNT for all of your electrolyte needs. You can do that at drinklmnt.com/robb. That's drinklmnt.com/robb and we wish you all a happy weekend. We'll see you next time.

Robb: Bye, everybody.