

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 this Healthy Rebellion Radio. The contents of this show are for entertainment and educational purposes only.

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

Robb: But we started off today laughing instead of crying. That's gotta be a good thing, right?

Nicki: It's a good day.

Robb: It's a good day.

Nicki: It's a good day. Welcome everybody. Thanks for listening to another episode of the Healthy Rebellion Radio. We've got our 30 day rebel refit now in full swing.

Robb: Just wrapped up the seven day carb test. I had some really fascinating discoveries in there. So I think we mentioned earlier that we did the seven day carb test on the front of this story. We've historically done it at the end, which I should've thought this through, even for the book. This was a great way of sorting people when they're coming from maybe dodgier eating and they're already eating more carbs and maybe just stuff in general.

Robb: But folks that a good number of people found that they were more carb tolerant than maybe what they thought, or they figured out that maybe a half serving of what they did is a good place to be. And then for a lot of other people, they were like, "Damn, I don't do very well with carbs." So they were able to structure if they were chasing the food side of things appropriately for the reset itself. And so we're just getting going on that.

Robb: But it's pretty cool. Like it was an interesting experiment for a lot of folks. For a good number of people, it just kind of reaffirmed what they had suspected. And for other people, it was just a shocking eye-opener. Like we had a few people that they had suspected being kind of Perry diabetic, and they had some pretty rough numbers. And then a good number of people also did their blood work through precision health reporting and got that diabetes risk assessment.

Robb: And it was an eye opener. Like some people were like, "Okay, I get it." Like we had maybe five people that were in that pre-diabetic range. Not good lipoproteins, not good fasting blood glucose, high systemic inflammatory markers. And now we've got a benchmark and we're going to do the reset and then we get to retest that stuff. So it's pretty cool.

Nicki: Yup. Super cool. And so this week wrapped our week on food, moving into sleep as the primary focus for next week and the reset. And speaking of sleep, we had Doc Parsley come out last weekend and do a talk at SBG Texas on all things sleep. And that was a very enlightening for many in attendance. I think we ended it almost with the quote, "We're all going to die."

Robb: He did end it initially with, "Well, it doesn't matter because we're all going to die anyway." But, it was a great-

Nicki: It was really interesting though, like tying it into the catabolic effects of lack of sleep.

Robb: Right.

Nicki: And what that does if you're unable to fully restore and repair and recover, if you don't get adequate sleep, then you're unable to do those things. And so then each day you wake up, you're kind of using a diminished-

Robb: You're starting from a deficit.

Nicki: You're starting from a deficit. Exactly.

Robb: It was cool.

Nicki: That was really good.

Robb: And Doc has been training with us down at SBG Texas. So that's been fun. Although Doc Parsley is a large, strong, well moving individual. So-

Nicki: Indeed.

Robb: ... been pressure testing my psych control escapes for sure. But anything else just on general housekeeping or state of the nation?

Nicki: I don't think so. If something pops up, then we can interject midway through.

Robb: Okay. I am rocking some SBG Texas garb.

Nicki: You are.

Robb: And so I think Michael was-

Nicki: You got the new SBG Texas T-shirt and the hat.

Robb: He's selling this stuff online, I think. Or maybe they're gearing up for that.

Nicki: Maybe. Cool. Cool. Let's see. Let's move on to our news topic.

Robb: I love Nicki's notes. Well, we're all going to die.

Nicki: It's true.

Robb: It is true. As far as we know.

Nicki: There's been one truth of human existence.

Robb: Nobody has bucked that trend yet.

Nicki: Nobody has.

Robb: Yup. But there's no randomized control trial on it. So, I wonder-

Nicki: Well, empirically, it seems to be the case that we all do die.

Robb: There's no randomized control trial on it. So the-

Nicki: Not everybody-

Robb: ... evidence-based folks-

Nicki: Not everybody believes in-

Robb: ... should be up in arms over that.

Nicki: Not every-

Robb: They're like, "Where's my trial?"

Nicki: Not everybody believes that.

Robb: It's pseudoscience. News topic, does your endotoxin may not be the major cause of postprandial inflammation and adults who consume a single high-fat or moderately high fat meal. This was a pretty cool study because it out in vegan land, there's been this notion that, high fat diets will increase the translocation of LPS, lipopolysaccharide, which is a component of, kind of the cell membrane of gram negative bacteria.

Robb: And LPS is nasty. In all vertebrate organisms, you get a pretty potent immune response. And if somebody has ever known someone who had septicemia or some septic event, you potentially die because of the just spiraling cascade of problems that occur with the immune response and whatnot, trying to deal with the LPS.

Robb: And there's been some thought that this is particularly problematic for low carb diets. And it's honestly been a head scratcher for me because we tend to see generally so many things improve on higher fat diets, at least lower carb diets that it's been perplexing to me that there might be some sort of problems attached to this. And this study, let's see here from the article, LPS may not be the major cause of postprandial inflammation in healthy adults consuming moderately high fat diet, plasma free fatty acids may modulate postprandial inflammation.

Robb: The prevailing concept of high fat diet induced metabolic endotoxemia requires careful reevaluation. So I think if somebody is eating both a high fat and high carb meal, the potential here for problems is elevated because the carbohydrates provide substrate for bacteria to reproduce. And then what happens particularly interestingly with saturated fats, the LPs associates with saturated fats, preferentially. It tends to associate with mono and polyunsaturated fats less. And so if you had something like coconut oil over a giant helping of rice or something-

Nicki: Or a deep fried Twinkie.

Robb: Or a deep fried Twinkie, probably more to the point. I think that there could be legit problems there. And this is where it gets challenging to just say high fat. Like, what does that mean? What's the context? Like it's a very different thing potentially. And it should intuitively kind of make some sense. You have some beef, you have some broccoli, you have some tallow or you have some coconut oil or something like that. And that shouldn't, what's being suggested here is something like that is not going to cause this massive LPS spike in a proinflammatory state and whatnot.

Robb: Aside from the fact that eating is pro-inflammatory and it doesn't matter whether it's blueberries or whatever, whenever you eat, there's an uptick in the inflammatory state. Dr. Michael Leeds had a great article like ages ago because the vegans would rail on and on about this. And then, he had some studies where people were doing like kale smoothies and shit like that. And it high inflammation post-meal.

Robb: And this is why it's probably not a great idea to graze all throughout the day, because you're just constantly in this kind of pro-inflammatory state doesn't mean that you fast like an asshole, but there's a middle ground there, breakfast and dinner, breakfast, lunch, dinner, some time in between, compressed feeding window so that you have a long period of time while you're sleeping to reduce all those inflammatory markers and let the digestion settle itself and heal and everything. But this was a cool paper and the first that I've seen like this in a long time, that there was a reevaluation of the LPS impact on systemic inflammation as it relates to a high fat meal.

Nicki: Nice. And we will link to that in the show notes for anyone who wants to dig a little deeper on that. And let's see, let's announce our T-shirt review winner at this episode. It goes to S. Zaraka. My morning routine. "Hey Robb and Nicki, thanks so much for everything you do. I have enjoyed this podcast so much and fully appreciate the honesty and integrity with which you delve into sticky topics. I'm always excited when a new episode of the healthy rebellion posts as it's a great addition to my morning workout routine. As I quite enjoy Robb's occasional expletive, they often take me by surprise and cause me to chuckle, which makes me the only one laughing through an early morning run. I'm sure that I don't look crazy at all." S. Zaraka, thank you for your review. Send us an email to hello@robbwolf.com with your T-shirt size and your mailing address and we'll send you a Healthy Rebellion Radio.

Robb: No crazier than anybody looks while running in general.

Nicki: This is true. Let's see here. This episode of the Healthy Rebellion Radio is sponsored by BLUblox, the best blue light glasses for better sleep recovery and optimal wellness. Studies have clearly shown that blue and green light up to 550 nanometers is a potent suppressor of melatonin, which can cause bad sleep and poor sleep, in turn increases your risk of obesity, insulin resistance, and cardiovascular disease, which we learned a lot about this weekend with Dr. Kirk Parsley. And, the big takeaway there was, if you aren't focusing on your sleep, both quality and quantity, you're aging at an accelerated.

Robb: And just a real quick aside on that, Kirk made, what for me was like a whole pit of the stomach deal, which is that sleep deprivation is more impactful in kids than it is in adults. Now we feel it worse in a lot of ways, but he made an interesting point, which is that kids need more sleep than adults do. And the way that our schedules are generally working out, kids are losing a greater percentage of their sleep than what they-

Nicki: Historically have.

Robb: ... historically have. And that, that impact, he made a really interesting point that if you look at the symptoms of ADD, ADHD and overlay that with the symptoms of sleep deprivation, they are indistinguishable. And so he really made a strong case. He said it should be in his opinion, malpractice to simply prescribe ADHD medications, absent any investigation into improved sleep and sleep hygiene.

Robb: Something like BLUblox could be an amazing way to kind of equalize that story. I know that people have complex lives and sports. And I know that in the age of COVID, a lot of that stuff has changed at least to some degree, but now kids are on screens even more

because of doing schoolwork from home. Get BLUblox. If you have kids and they're doing later evening work, do something to help mitigate that. I think we've mentioned it on the podcast before, but there was a high school district here in outside of Austin that moved the start time one hour later than what they had done previously.

Nicki: And the car accidents by teen drivers plummeted.

Robb: By 85% in one year.

Nicki: It plummeted and because they were all due to over exhaustion.

Robb: These kids are just exhausted.

Nicki: So grab it. So the sleep plus lenses in BLUblox glasses, they block the blue and green light, there for after dark use. Again, they have them for adults and kids. We usually put ours on as soon as the sunsets. We wear them when we're reading in bed or if we're watching a movie with the girls. They offer free shipping everywhere. Then they do prescription glasses, reading glasses, and nonprescription glasses.

Robb: And not to beat this to death. This is one of these things that is a real cool win because you don't have to change anything. Like you probably shouldn't be watching TV in bed. You probably shouldn't be on your devices. But let's say you're, let's say whatever the other things are, you just put the damn glasses on-

Nicki: Slap some glasses on your face.

Robb: ... and you're good to go. And so this is one of these things that is really an easy win. And I think the data will just support this more and more as time goes on that these mitigating effects may have a really asymmetric benefit for folks. So I can't emphasize it enough. Like this is a minor investment that could have just a massive return for you.

Nicki: So check them out. Go to blublox.com/robb15. That's B-L-U-B-L-O-X.com/R-O-B-B15, and use code ROBB15 for 15% off your order. Are you ready for our five burning questions of the week?

Robb: Oh man. That makes me think of Michael's comment last night when-

Nicki: Burning.

Robb: Well, he said, "We're doing guard passing tonight and it's going to be hot fire." And Nicki and I, this is actually going to tie into our trivia question later. But, or is it?

Nicki: No.

Robb: We'll see. You change your mind.

Nicki: We changed our trivia question.

Robb: But we tried cooking some lengua and it didn't-

Nicki: I don't think it was the beef tongue. I think it was-

Robb: Everything else we did.

Nicki: ... some sugar free chocolate that we had, had earlier in the day. And I think that got us both fairly gassy. And then we ate... we normally don't do evening classes at jiu-jitsu because of our sleep. We're pretty anal about it, but we decided to go to the evening class, which meant we ate dinner at four because we didn't want to eat after eight when we got home. And so I think we ate a little too close. And something about what we had eaten earlier in the day and dinner, it didn't sit with either of us. And we were so gassy during class and sort of-

Robb: It's good time.

Nicki: Sort of embarrassing, but really, really uncommon. Like I rarely get severely gas. That was like severe.

Robb: I'm having belly rumblings just remembering it.

Nicki: Let's leave the gas talk and move on to our first question from Brad. He has a question about the last few pounds. "Hi Robb and Nicki. I've been following you guys since around 2012 and largely attribute my improved health and fitness since that time to the information I have acquired through your information regarding the paleo diet. A bit of background, I'm a 35 year old male, five foot seven, and hover around 138 to one 40 pounds most of the time.

Nicki: For exercise, I lift four to five days per week using a pretty standard bodybuilding borough split, and also walk a few miles per day. While I've been quite happy with where I am fitness wise, I've never managed to get below around 12 to 13% body fat, despite eating a protein dense, relatively low carb paleo diet most of the time. To get more granular about things, I eat essentially the exact same things six days out of the week, including two spinach salad with chicken breast and two tablespoons of high fat, low carb dressing, chicken breast with steamed broccoli and low carb stir fry sauce, and two measured out servings of frozen blueberries. I'm wondering if this is like supposed to be breakfast, lunch, and dinner, like these three things?" So he also includes calories.

Robb: What he mentions is a calorie total layer.

Nicki: A calorie total. Okay. "So all of the foods I eat are fairly standardized in terms of quantity. And assuming the information on the nutrition labels is correct, I should be taking in about 1300 calories per day and just slightly under one gram of protein per pound of body weight. On the rare occasion that I snack on something beyond these standard meals, I'm mindful to burn off the extra excess calories with walking, assuming a burn rate of about 75 calories per mile. Where things go a bit off the rails is a weekly Sunday cheat day during which I allow myself to eat whatever decidedly, non paleo foods, I feel like provided I get a good whack of protein, don't go over 3000 calories for the day. So based on every calorie calculator I can find, it seems that I should be pretty consistently in an overall calorie deficit and losing the last remaining bits of belly chubb.

Nicki: But despite having eaten this way for years, it's just never quite panned out. I'm wondering what the likely culprit may be? I assume I'm not severely under eating to the point of starvation mode since I'm able to maintain a pretty solid amount of muscle mass. And it doesn't seem that a once per week intake of 3000 calories would be enough to offset the other six days of low calorie eating. So I'd be very interested to know your thoughts on what might be preventing me from losing those last bits of stubborn belly fat. Thanks so much, Brad."

Robb: You have any thoughts on this?

Nicki: I'm just like, I just don't think the protein is where it needs to be. Like he's saying-

Robb: He said that it's-

Nicki: ... it's slightly under one gram of protein per pound-

Robb: And seems skinny.

Nicki: ... and it's all chicken, I mean, that's fine, but two spinach salads with a chicken breast and two tablespoons of high-fat, it's all chicken breast. I don't know.

Robb: That was one thing that stood out to me like-

Nicki: I would go to 1.5 grams per protein, per pound of body weight and see how we do.

Robb: That was kind of my main thought. And then also it was always sleep. Like what time in bed? What time do you get up? What is the sleep quality? Where in the day are the bulk of these calories getting partitioned would be another thing, just doing more calories earlier. And it's funny again, hard tip to Tyler and Luis, this'll sound crazy. Like a lot of folks would be like, "Oh my God, he's under eating and he's destroying his thyroid and all."

Robb: But we've talked about this a little bit before in the, I think that there's some thermodynamic efficiency with eating a largely whole food unprocessed diet, and you may just not need as many calories as what you might otherwise need. And I think that, that really freaks people out. But I'm with you. I would a protein a bit. I would definitely be cognizant of what time of day this stuff is being eaten. And then I would really take a close look at sleep, and make sure that sleep is totally buttoned up and on point like independent of other-

Nicki: And stress. And he didn't mention anything about stress. But if that is a factor, then figuring out some stress mitigating strategies as well.

Robb: Yup. But that's when I've got-

Nicki: Brad, I would bump up the protein and see. And I'm assuming he's weighted and measured all of this stuff. So, under one gram of protein. We have a lot of people in the Rebellion who their biggest aha, their biggest takeaways from these resets is protein. And-

Robb: And just magic happens.

Nicki: ... they thought that they were eating enough. They thought that they were prioritizing it, but they bumped that up and it's like-

Robb: Magic happens.

Nicki: ... it's life changing. Magic happens. So Brad do that and then let us know. We're curious. See if you get below that 12% body fat.

Robb: We're keto curious.

Nicki: We're keto curious. All right, we've got a keto question. Net carbs versus total carbs from Kayleigh. "Hi Robb and Nicki. Wondering if you can clear up some information

about fiber in aid of carbohydrate digestion. Some people in the keto community count net carbs while others count total carbs in their macros. I've heard experts talk about this on both sides of the spectrum, favoring either clean eating, or "dirty keto."

Nicki: I've never gotten a clear picture of how added fibers to foods such as protein bars help or hinder the digestion of carbohydrates. From my understanding, the added fibers are synthetic fibers, and I'm curious if they take on the same metabolic pathways as natural fibers. Since carbohydrates begin to be digested in the mouth and soluble fiber isn't digested until the large intestine, does fiber actually play as big of a role in digestion as dirty ketoers suggest? I guess I'm just kind of iffy on where to stand when it comes to fiber. Anyways, thank you, Robb and Nicki for the incredible work you do. I have been loving the new podcast."

Robb: So man, where do I want to go with this? When we're talking about bars and stuff like that, the type of fiber used for some people they have effectively no blood glucose response and maybe it's the glucose. Like people get all wrapped around the axle of like glucose and insulin. But it also just means more calories. Some people they, and, or their gut bacteria do a great job of breaking these fibers down like chicory root and some of these corn derived fibers that are popular in these bars. And you get some calories out of them, and maybe you get a insulin response, although in the grand scheme of things, I don't know that that's really that big of a deal. I think if you're dealing with largely whole unprocessed foods, then you just look at net carbs.

Robb: If we're dealing with processed foods, then that may be a case for looking at total carbs, I guess, because some people do have a disproportionate blood glucose response, but again, like ketosis is not the only way to burn fat and to lose weight and all the rest of that. And as always, when we're dealing with processed foods, like it's just easier to consume more of it and it tends to be less satiating.

Robb: And so I think that that's where the stuff gets kind of murky. Like it's not the same thing to equate broccoli with a soluble corn fiber in a bar. And like, we just got exposed to a new type of Keto Bars, and man, it's delicious. And it also might be one of the things that's kind of gassing us up a little bit. So in addition to other stuff, which means that something's going on with the fiber in it. Do you have any other thoughts around that?

Nicki: I don't. I mean, it really comes down to like, obviously the bars are convenient in a pinch, but I think from a wide variety of reasons, or like trying to get your food from real food sources as like the foundation of your diet is always the place to go.

Robb: And what works best. And again, being protein centric, like really emphasizing that because you get more nutrition, you get more nutrition density, you generally get higher satiety. There is an inflection point where eating enough protein actually stimulates appetite. And I think that that's in part because the body is recognizing that we're going beyond a certain protein threshold. And so we either need additional carbohydrate or fat to act in the metabolism of that protein. So there is a, I don't know about diminishing returns, like even in some of the overfeeding studies on protein, the main negative benefit is that people gained lean body mass. So it's, I don't know, man, it's just protein wins, like it had just again and again and again.

Nicki: That could be a T-shirt, protein wins.

Robb: Yeah. Protein wins.

Nicki: Our next question is from Bennet on ammonia/urea sweat. "Robb and Nicki, during morning workouts, I have noticed that my sweat has a distinct ammonia odor. From non-scientific and some scant scientific articles I've gathered that this has to do with protein metabolism and excess urea. Although my labs are well within normal ranges. My diet is low-ish carbs, less than 100 grams on most days. And my daily macros are about 150 grams of protein, 50 to 60 grams of fat and 100 to 120 grams of carbs.

Nicki: I generally get protein from grassfed and wild sources and carbs tend to be rice, sweet potatoes, broccoli, cauliflower, berries, et cetera. Fat is generally olive oil and avocado. I work out at 5:00 AM Monday through Friday, fasted. I generally eat between noon and 8:00 PM. My workouts consist of stationary cycling and rowing, strength training, mainly with dumbbells and Kettlebells, kin stretch, yoga and occasional outdoor running.

Nicki: I usually finish my workout sessions with 15 to 20 minutes in an infrared sauna. I noticed the body odor when I am doing a Peloton 30 to 45 minute spin class. Is there anything wrong with my body excreting this excess urea during metabolic conditioning and cardio workouts? If so, would you consider some pre-work carbohydrates to shift to carbon metabolism? Or is there anything else I should consider?"

Robb: So this next piece is actually important. He mentions that he's on a statin. And so we'll circle back to that really quickly. I think what's his name again?

Nicki: Bennett.

Robb: Bennett. So I think Bennet's onto something initially here, which is that if we're doing some high intensity training in a fasted state and we're really like pinging our body for additional fuel, then one of the fuels that we're going to use are amino acids to kind of facilitate this process. And that can definitely elevate urea because we're dominating proteins to be plugged into this whole story.

Robb: But, I'm really glad that he mentioned that he's on a statin. So can you scroll up just a little bit. There's two papers that I linked to the impact of combined treatment with robust statin and antidepressants on liver and kidney function in rats. So it is in rats, but it makes the case that urea elevates dramatically went on statins in both humans and mice, but this one was looking at mice.

Robb: But the other paper, effects of statins on skeletal muscle, a perspective for physical therapists, it makes the case that, and we've known this for a long time, particularly in the early days of CrossFit and Uncle Rhabdo and all that stuff, statins dramatically increased the likelihood of developing rhabdomyolysis, this massive muscle breakdown that can be injurious at a minimum and life threatening at the worst extremes.

Robb: And so I'm not sure how much of this potentially is just training hard in a fasted state, which is absolutely a stressor. Some people do pretty well with it. Other people, the wheels kind of fall off the wagon. I guess one could make the case that maybe this is a benign feature, but there are a lot of folks that are wary of having urea levels high enough that you can actually smell it on your person, because you're excreting it so high.

Robb: And then the fact that you are on a statin, it definitely increases the likelihood of elevated urea levels and the potentiality for rhabdomyolysis. And that may be a little bit of what's happening here. What to do about that? I'm not entirely sure. We will have an interesting cardiac risk panel that we're going to be helping some folks roll out to the world here soon.

Robb: And I think looking at that with a fresh set of eyes, maybe doing a coronary calcium scan to see where you are there. I was just looking at a really interesting, massive study that that showed that, all cause mortality was lowest at a total cholesterol level in men of about 200, 210 milligrams per deciliter in women. And again, cholesterol is different than lipoproteins, but there is generally some synergy there.

Robb: And then women it's even a little bit higher than that. So there's a lot of people running around that are getting treated and this doesn't even have to get into like the cholesterol denialism stuff, but there's a U-curve, and very, very low cholesterol is correlated with higher morbidity, mortality. And very, very high cholesterol is, similar related and we have a low ebb and that low ebb is higher.

Robb: Like the lowest problems, the lowest death and illness is significantly higher than what the medical community is saying that we need to have a cut 0.4. So there's a lot of moving parts to that, but doing deeper dive to just kind of figure out, do you have some discordance in the lipoproteins and cholesterol? What does your insulin sensitivity look like? What's total inflammatory status?

Robb: And then actually looking at disease process, like looking at a coronary calcium scan. I would take a peek at that with the whole point being that if you look pretty good, it otherwise. So the statin dose that he's on is 40 milligrams per day, at least. That's what he related to us. In the clinic in Reno, when we had folks otherwise eating well and doing good exercise and good sleep and whatnot, the doctors are using like five milligrams of statin for folks and sometimes five milligrams every other day.

Robb: And they still get a really remarkable lipid lowering effect and it moves things in the direction that they would like to see. I know some people are horrified at statins entirely. Well, if you're the doctor managing people, then you get to have an opinion on that. If not, then we would just get to generally speculate. But there could be the potential that you may... there might be a lower dose that could be both efficacious for lipid lowering and maybe way less impactful on like the muscle wasting and the potential urea and all that type of stuff. So, it's helpful that he added that that little bit because that, in my opinion, I bet that that's a big factor in this story.

Nicki: And we'll link to both of these papers that you mentioned, about statins.

Robb: And if he does any tinkering, it would be really nice to hear something back, like what did you discover and what... Just stay in communication with us.

Nicki: Sounds good. It's time for the Healthy Rebellion Radio trivia. Our episode sponsor BLUblox is giving their remedy sleep mask to one lucky winner selected at random who answers the following question correctly. Robb, what did we cover in jiu-jitsu last night?

Robb: Gravity passing.

Nicki: Gravity passing.

Robb: Now this is very different than pressure passing. I've had some colleagues in jiu-jitsu who will wax eloquent about pressure passing and they're passing still sucks, and they still burn a lot of energy doing it. And it's very, very different than this gravity passing story.

Nicki: It's a thing to learn. Like it's tricky. I've been working on this for a while and each time I get a little bit better, but like, I feel like last night was-

Robb: Well, initially your jiu-jitsu gets worse. Like you end up in closed guard. You end up swept a lot. And then when it starts clicking, you become a nightmare passing people's guards. So it's gravity passing stuff.

Nicki: So gravity passing is the answer to play. Go to robbwolf.com/trivia and enter your answer. And we'll randomly select one person to win a remedy sleep mask from BLUblox. And the cutoff to answer this week's trivia and be eligible to win is Thursday, October 1st, midnight, and a winner will be notified via email and also on Instagram. This is open to residents of the US only. And we have our next question. It's from Noah. He's looking for some help for a cop.

Nicki: "Hello, Robb. I would love some guidance from you. I've been listening to you for a bit, but I regularly feel confused and overwhelmed at all the options and best advice for optimal health. I am a police officer, and I know you worked with cops in Nevada and have an understanding of our unique issues. I work nights and sleep five to six hours a day, but usually it's broken as I have a family at home.

Nicki: My stress usually feels manageable, but is probably higher than the average person. To make it harder, I'm a bicycle cop in Seattle. So the last few months have been filled with high stress, long hours and random sleeping. I recently had some blood work done and was happy with my levels. I just turned 37 and want to do what I can to maintain good blood work. I weight train about five days a week, and I'm happy with my muscle mass.

Nicki: Six foot two, and about 250 with probably 20 to 30 pounds of fat that I need to drop. Knowing that my sleep and stress are jacked up and won't change unless I change jobs, what recommendation would you give for diet and supplements? I try to stay low carb under 100 grams and I'm gluten-free. Should I be looking at a more extreme keto diet, time restricted eating, or are there supplements I should be focusing on? I want to do what I can to mitigate the poor sleep and extreme stress, and I would like to drop weight and maintain good labs. Any advice you have would be appreciated."

Robb: Man. This is just a really tough thing to deal with. Like, again at the talk to Doc Parsley gave it SBG Texas. He talked significantly about shift work and the challenges there. So the one direct question here is, would a more extreme ketogenic diet be beneficial? Maybe. The thing is, is that in these sleep deprive scenarios, we know that folks are significantly insulin resistant due to the sleep deprivation. And this is just like an ongoing thing. But folks are also under a lot of stress. And I mean, police officers in particular right now are just under massive amounts of stress. Ketosis can be a stressor. It can be a good stressor. It can be a challenging stressor. That would be something that you would just have to experiment with and see if that, that was an improvement.

Robb: I could make the case for some focus on time restricted eating, where you put the bulk of the calories as earlier in your day as you can, which can be a little bit challenging. That may mean that you're eating at night, which has a whole other weird thing like your morning. If he's on night shift, then his morning is-

Nicki: He does work nights. Somewhere he would have to-

Robb: So that gets tough. Or people get off shift and then they're eating right before they go to bed during their nighttime, but the actual daytime, which is inexact. It's good from the perspective of the actual circadian biology, the outside world. It's bad from the perspective of you want your body temperature to drop and you want to cool off and be able to get into a deep restful sleep. And this is where this stuff is just, it's really tough.

On the supplement side, something like Doc Parsley's sleep remedy to improve the sleep that you do get, wearing blue blockers, wearing earplugs.

Nicki: Making sure your room is-

Robb: Dark cold room.

Nicki: ... completely dark, like no light.

Robb: If you need to sleep in a closet-

Nicki: Closet.

Robb: ... do it. Get a decent small mattress and put it in the closet. Like all of these things make a huge difference.

Nicki: And maybe instead of focusing on the carb account, like instead of going keto, like he says, your carbs are currently around 100 grams. Like maybe leave that alone, but really focus on the protein too. Like at least a pound per pound of body weight.

Robb: Gram on protein.

Nicki: Per gram. Sorry. A pound per pound of body weight. That'd be a lot pounds of meat.

Robb: That's pretty aggressive. Yes. You need a lot of toilet paper for that. So, Noah, I wish we had something more concrete for you, but those are the things that I would tinker with. You could play with lower carb, but I kind of agree like that 100 grams is probably fine. Maybe try to partition that earlier in your relative day. Or like if you spend some time out on the bike and then sometime a little bit more desk-bound or something like that, like doing the bulk of the carbs more posts, like a shift-

Nicki: Activity.

Robb: ... on the bike after you've been doing activity to maybe some of your meals are pretty low carb and some of them are higher carb. And then just doing everything you can do improve the quality of the food that you get.

Nicki: Vitamin D3, because you're in Seattle and-

Robb: D3, K2.

Nicki: D3, K2, that would be a good one.

Robb: As Nicki likes to say clutch.

Nicki: Clutch. Do I say that a lot?

Robb: You say that a fair amount. That would be clutch.

Nicki: I don't realize that I say that. I think you're putting words in my mouth.

Robb: Been known to do that. But Noah, keep us posted and thank you for your service. There are people that really appreciate what you're doing. So thank you.

Nicki: And our final question this week is from Wayne on sarcopenia. "Good day, Robb and Nicki." I wonder if he's from down under. He says good day.

Robb: I don't see how you would make that leap. That seems ridiculous. It's kind of like you all and they might be from the south. It's just ridiculous.

Nicki: All right. So he says, "Studies show that people with the most muscle mass age better than ones that don't. I'm wondering if the measurement of the muscle mass in these studies is a crude way of measuring strength and mobility. I get that muscle itself is a powerful endocrine organ, emitting hormonal messages that regulate metabolism, inflammation, and overall function. And that it also provides a metabolic reservoir for support and recovery from physical trauma." And he's quoting that little bit from Mark's Daily Apple.

Nicki: And then he says, "I am 45 this year. So this issue is becoming ever more important. The other thing is that I'm a hard gainer. I've tried so many different protocols, but the only one that has worked for really putting on the muscle mass is high volume, very low weight, full body workout, five sets of 20 reps, not too slow, but never using momentum to move the weight.

Nicki: At every point of the movement, the muscle is controlling. However, with this protocol, my strength goes down. What used to be easy to lift in everyday life is harder. And I also wonder due to the low weight, how much is this not helping with bone and joint strength? When I go back to a five by five full body, four to six times a week at a weight that I could do 10 reps at, strength goes up, but muscle mass goes down. I do also gain even more strength following a split power lifting program, but work requires that I need to lift 60 to 70 kilos, which is 132 to 150 pound coffee bags. So I cannot have leg days.

Nicki: Also a while ago, 100 kilos training partner swept me while I was in mount. My hand got caught and his, and my body weight about 80 kilos total went onto my fingers. As it was happening I thought, 'Great. There goes my fingers.'" And then nothing. I had a slight sprain on my ring and little finger that went away after three days. I believe this is because I'm also following the gymnastics body's strength program and can do five by five full fingertip pushups.

Nicki: I've gained little muscle mass from doing this program, but a lot of mobility and strength and movements that are not found in weight training, I've gotten commons and BJJ of indestructible. Why are you so flexible? How did you do that? That can be tied to doing the gymnastics bodies program. I really see this program can reduce injuries, especially ones that you don't see coming. These are the ones that you get later in life.

Nicki: I am leaning to put most of my effort into the gymnastics program and some into the five by five weight program. This seems to fit what I'm doing in life better than striving for the most possible muscle mass gain. But am I shortchanging myself? Should I be going for muscle mass? Maybe alternate the five by five with the five by 20 every six weeks or so, I'm wondering your thoughts on this."

Robb: Holy cats. That's a lot to unpack. So early on he says, studies of people with the most muscle mass age better. It's not necessarily the most muscle mass. We have kind of, again, I suspect there's some sort of a U-curve on this. When you look at bodybuilders, they don't necessarily live any longer than anybody else, but they tend to generally have a pretty good health span. Although that's kind of hard to unpack.

Robb: Like you look at Ronnie Coleman, like he's amazing. He was so amazing, but like bilateral hip replacements. And I don't even think the dude can walk now. And, how is that going to affect his aging? Like that is not going to play out well. So I don't know that I would look at this as just purely muscle mass. Also the really high volume, high rep stuff can be cool for like mitochondrial density. It can be cool for increasing vascularization around muscles. So periods of some higher rep training can be good, but from an aging perspective, it's not just muscle mass that we're concerned about. We're really worried about the large motor units innervating the type two way fibers, which are super explosive-

Nicki: Ability to produce power.

Robb: ... ability to produce power. And the thing that puts people into a rest home is the inability to go from like seated to standing. That's a big deal. And the other biggie is tripping and falling and breaking something. When we trip the ability to regain your footing is from fast-twitch motor fibers. And there's also a big mobility component to this. And like, this is where some of the gymnastic spotty stuff and some FRC and whatnot really makes a lot of sense.

Robb: But at the end of the day, I think something like the five by five and I wouldn't just stay in five by five, like there's sets of two, sets of three, you can build volume it at these other things. So one is I wouldn't stay completely wed to just a five by five protocol. Like I would play around with a bunch of different stuff. I can't recommend the folks at Basis Health & Performance enough.

Robb: Like I haven't been able to squat and dead lift really for about 10 years and I'm doing that now. I'm only back up to 185 pounds for three sets of five on both of them, but I literally could not do anything in those movements. And now I get that Wayne is not going to do a ton of lower body work because of the demands of his job. But it compliments things so incredible well.

Nicki: Well, he's lifting a lot at work. So having that mobility, that end range the strength in joint integrity, all of that will only augment what he's doing.

Robb: Absolutely. So I still lean towards more, to activate these type to a motor units, either need to lift a very heavy weight or you need to lift a lighter weight very fast and like shot putting. And, throwing events are actually really, really good for helping these things. Kettlebell swings, Kettlebell throws. If you're in a spot where you can do that, but, either speed or heavy weight.

Robb: The Westside Barbell folks kind of try to emulate the fast component of this with what they call speed days. I think it's hard to pull off, like they will do a bench press very, very quickly. But the thing is, is that you have to decelerate most of these movements at the top. And so you're not really getting the same effects that you get from like jumping, bounding, throwing. So that's just a thing to consider. But again, I could see some benefit from these higher rep, maybe a two weeks out of eight.

Nicki: By doing them faster. Right? Because he's saying he's not too slow, but he's not using any momentum.

Robb: But this is where they're keeping time under tension and you're building muscle mass with that. The thing is, is that we have a sarcoplasmic hypertrophy and then myofibril hypertrophy. Sarcoplasmic hypertrophy is all the cellular components that kind of support the cell. And then the myofibril is the actual contractile elements of the muscle.

You get some of both just about, regardless of what type of training you do, but definitely strength and power training tends to be disproportionately bias towards the myofibril growth.

Robb: Now, again, there's kind of benefits to both sides, but in general, you want more of the myofibril growth. So this is where like the heavier weight, but still trying to move it quickly. Fred Hatfield called it compensatory acceleration. So even though it may not be moving that fast, you're trying move the weight rapidly and whatnot. For myself at my age, like I still mainly stick to loads that I can complete the rep in less than a second.

Robb: With jiu-jitsu, with injury potential, all that stuff, like I have no need for like a super grindy movement at this point. So it's really, it's good stuff. It's a really good question. I guess I would lean towards a combination of like the gymnastic strength training FRC for joint integrity and mobility, and then trying to build a really good explosive strength centric, power centric engine within the rest of your body by using classical barbell movements, maybe a little bit of track and field stuff, jumping, running, bounding, throwing. And I think that that's a damn good place to be. And shouldn't be super time-intensive also.

Nicki: Awesome. And that was our fifth question.

Robb: Awesome.

Nicki: Any wrap up thoughts?

Robb: None this time.

Nicki: -time

Robb: I'll keep my mouth shut this time-

Nicki: You mean this time?

Robb: ... and make this an easy one.

Nicki: All right, folks. Thank you so much. Be sure to check out our show sponsor BLUblox for your blue light blocking glasses. Remember we are all going to die and getting more sleep, better quality sleep, longer duration of sleep will help us stay-

Robb: Enjoy the time we got.

Nicki: Enjoy the time we got and stave off the catabolic effects of- life

Robb: And that's the last ad that BLUblox ever did with us.

Nicki: But BLUblox glasses can help you with this. You go to blublox.com/robb15, use code ROBB15 for 15% off your order. Again, that's B-L-U-B-L-O-X.com/robb15. And folks, please share this episode. If there's something in the show that's helped you, share it with your friends, spread the good word and we'll see you next time.

Robb: Take care everybody.