

Nicki: It's time to make your health an act of rebellion. We're tackling personalized nutrition, metabolic flexibility, resilient aging, and answering and 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 changes. When Robb gets passionate, he's been known to use the occasional expletives. 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: Hello.

Robb: Just trying to comb over my comb over.

Nicki: We're laughing because we always have to readjust our chairs a lot to get both of us in the frame for the videos that we use for-

Robb: Are you calling me fat?

Nicki: Instagram clips. And frequently some random song comes up.

Robb: Like don't sit so close to me?

Nicki: Don't sit so close to me.

Robb: I don't know why people come for the show, but it's definitely not for our singing.

Nicki: Definitely not for singing. In my next life, I'm going to come back as a singer.

Robb: You could sing, you just need some training. You just kind of start from zero and haven't really refined stuff yet.

Nicki: I need some training for sure.

Robb: Speaking of training, how's your jujitsu going?

Nicki: Better, more consistent now. We've had a couple of classes down at SPG Texas, which is awesome. And then we've been doing more training in the matted area that we've set up, so that's good.

Robb: Pretty good. Heavy site control.

Nicki: Getting there.

Robb: Not calling you fat, just good.

Nicki: I can get heavy.

Robb: You can.

Nicki: I'm not afraid to get heavy. Let's jump into our show today, enough of the random chitchat.

Robb: Chitchat.

Nicki: Yes. What do you got for a news topic for us?

Robb: Pretty cool paper that Ken Ford shot to me, it's called Satellite Cells in Aging: Use It or Lose It. It's a very accessible paper, we'll have a link to it in the show notes. But it talks about the role of satellite cells in our muscle structures, muscle tissue. And their function is to go in after we've done physical activity and to help the repair process. And this whole topic of pro resolving mediators is becoming more and more important. But it's interesting, there's this kind of fine line between if you're too inactive, then the satellite cells just kind of go away and then you lose the ability to recover. And I would go out on a limb and say, if you're trying to be a CrossFit games competitor, you're kind of burning through your pool of satellite cells maybe overly aggressively-

Nicki: So it's a fixed amount that you have when you're or?

Robb: Kind of. I mean, there's that whole Hayflick limit, 50 replications and whatnot before we run out of telomeres and then run out of cells. So it's kind of fixed, but there's some wiggle room on that. Like ketogenic diet seemed to be HDAC inhibitors, so it slows the telomere degradation. Does that buy you a few more replications? In theory, it should, it might. But there is also some potential around some hyperplasia, like some splitting of the satellite cells. A lot of this stuff is still really murky. I remember in my early power lifting days, it was super controversial the notion that you could have hyperplasia splitting increased number of muscle cells. We know that that can happen in fat cells, but it was thought to be impossible in muscle cells. And then we discovered that you can do it, it's just modest. It's not like you can double the number of muscle cells that you have, but the number can increase. And not surprisingly, it's in response to heavy physical training.

Robb: So there's kind of a balance in the whole thing. I'm always nervous about balances and middle grounds and all that stuff because people-

Nicki: Everything in moderation.

Robb: Everything in moderation, like what the fuck does that mean? But interestingly though, the pursuit of shifting from a novice to an intermediate strength athlete, the protocols generally involved in that, in my opinion, seem to fit in this middle ground. You look at prelep and charts and the volume and intensity that's necessary to get an adaptive

stimulus, the frequency, the volume, the intensity is right. It appears to be right in kind of a nice sweet spot for maintaining these large motor units, maintaining muscle mass, causing the stimulation of these satellite cells in a way that's beneficial but not so much that you're kind of burning the candle at both ends. It's a great, great paper, very accessible. And we have a link to that in the show notes.

Nicki: Awesome. And let's move on to our Healthy Rebellion Radio tee shirt winner. Yes, you have. I've been staring at it for the last bit you're talking. Some of us stuck to your stubble, so there. It's gone now folks.

Robb: It's not awkward at all.

Nicki: This a review tee shirt winner is from Joey Low 73, he says, "Feisty Robb is awesome. I've been a huge fan of Robb for years, and now with Nicki the dynamic on the podcast is even better. The info that Robb and Nicki kick out is indispensable. I've been trying to follow Robb's advice and he does guidance in the diet and exercise arena, and have benefited greatly. I listened to the paleo solution podcast religiously, I've sort of read the paleo solution book. I will buy Sacred Cow and probably read it. I'm not much of a reader, LOL, I am a huge listener. Maybe I'll buy the audio book."

Robb: The audio book works, thank you.

Nicki: "Anyway, love the podcast, I really appreciate you." Thanks Joey Low 73 thank you, thank you. Send us an email to hello@robbwoof.com with your tee shirt size and your mailing address and we'll send you a Healthy Rebellion Radio tee shirt. And this episode of The Healthy Rebellion Radio is sponsored by our friends at Paleovalley. They make the most powerful, pure vitamin C supplement you can get. Paleovalley essential C complex is one of the only immune boosting products on the market made from whole food sources of vitamin C that your body can effectively absorb. Paleovalley essential C complex contains three of the most potent sources of vitamin C on the planet, the unripe acerola cherry, the amla berry, and the camu camu berry. And these are three berries that I had never even heard of.

Robb: You're all kinds of educated.

Nicki: The acerola cherry alone is 120 times more potent than an orange, which is really cool. We're big fans of all of Paleovalley's products, and the essential C complex is one of our favorites. And Robb you like to take.

Robb: I use it before bed frequently. There is great research suggesting that vitamin C in that late evening period can help mitigate cortisol production. It's just part of my sleep hygiene regimen to put in some of the Paleovalley vitamin C. We've been sleeping long and well. I've been unclear-

Nicki: I don't know if it's like partial depression from this current lockdown stuff, but definitely been sleeping well.

Robb: Everybody has been sleeping about an hour longer than normal. But the Paleo Valley vitamin C is super helpful for that.

Nicki: And Paleo Valley essential C complex is non-GMO, it's gluten-free, grain-free, soy-free, dairy-free and made with all organic super foods. So you'll see no fillers or flow agents that you typically find in most supplements, nothing weird just food. Grab some Paleo Valley essential C complex by going to Paleovalley.com and use code THRR10, that stands for The Healthy Rebellion Radio 10, so THRR10 for 10% off your order. And now let's jump into our questions for today, shall we hubs?

Robb: Indeed, let's do it.

Nicki: Our first one is from Tim. He's wondering about metabolic syndrome and intergenerational effects. Hi Robb, thanks for all the topics you've addressed on The Healthy Rebellion Radio. It has made navigating the current sick care environment a lot more manageable with someone like you empowering us all with transparent information. My question is regarding the intergenerational effects of our chronic disease epidemic. What do we know about how these conditions related to hyperinsulinemia filter down to our children and our grandkids? Particularly interested in the increasing percentage of linoleic acid in our fatty tissues, is this purely nature or is the baby's tissues make up somewhat dependent on the diet and lifestyle of the parents?

Robb: Again, one of these questions where it's comparatively short, but there is a lot going on there. I'll actually try to tackle this in reverse order. The linoleic acid story, clearly the addition of seed oils to our diet is arguably one of the bigger changes in the last 100 years, like the amount of sugar is a big deal. What was the thing we were just listening to that the grandparent bought one five pound package of sugar for the last multiple years.

Nicki: Peter Attia had a gentleman on his podcast who was talking about fructose, and he was-

Robb: Fructose and cancer.

Nicki: In his own experience as a young kid, his grandmother, they didn't have a lot of money and they raised all of their food and-

Robb: And he was in rural West Virginia and he said nobody was overweight.

Nicki: And the grandmother would buy a five pound bag of sugar, and that would last several years. And so whenever she made a cake, he explained that the cake tasted more like-

Robb: What we perceive to be a biscuit.

Nicki: What we would expect to be like a biscuit.

Robb: So these are a couple of the things that are really massive changes in 50 years. And I know that some of the evidence-based crowd likes to poo-poo this stuff and it's just calories in, calories out. And at the end of the day, our calories matter. But these hyper-palatable foods, these foods that are themselves signaling molecules, is it so unreasonable that just a massive shift in the quality and quantity of these different nutrients in a very brief period of time, could that have some untoward effects? That's the main question I'm having, and I know some people can get a little bit overboard on that. But I think that this is a real issue. The little linoleic acid piece is interesting in that there are cultures that eat lots of seeds and have done so historically. In the area of Texas that we're in, pecans were a really common feature and they're fairly high in linoleic acid. And there are other groups that eat almonds and there were other groups that ate acorns and whatnot, and all of them are pretty high in linoleic acid.

Robb: The really important factor there I think is all of the food that usually goes along with that. I would go out on a limb and say that it's a different experience to get this from acorn meal that you have to blanch and soak and sprout and do all this stuff versus like a Twinkie or a Hoho or something. So I would go out on the limb and say that there's some differences there. And then also if we have adequate EPA and DHA, this is some stuff that I learned from Mat Lalonde ages ago. If you're deficient in EPA, DHA that the short chain Omega three and Omega six fats end up having more effect kind of going either pro or anti-inflammatory. And this is where this stuff gets a little bit difficult to unpack. You can look at studies where getting significant amounts of plant derived short chain Omega fats, it looks pro-inflammatory in one study and not particularly pro-inflammatory in another study.

Robb: And some of that may be due to, well, this group of people were actually getting adequate levels of EPA and DHA, and this other group was not. So again, you kind of have to take the dietary factors as a whole. So that's kind of one piece to the story. And this intergenerational question is really fascinating to me, and I talk about it in several of the talks that I've given the longevity talk and then the metabolic flexibility talk, I think I mentioned that. But it's well understood that things like traumatic events can have multi-generational effects, stress, cortisol, hypervigilant state, impacted insulin sensitivity, that's been well established both in humans and animals. If you looked at Holocaust survivors and their children and whatnot. So there's clearly an epigenetic shift that occurs that this really pronounced stress environment seems to set future generations up for kind of anticipating a high stress environment which can set them up for some really difficult times.

Robb: Other layers to this story, which we don't really have good data on it yet, but think about antibiotics were broadly developed. I think the sulfate drugs were developed in the 1930s and then it wasn't until maybe the late 40s, early 50s that penicillin based antibiotics really hit the scene. And then we've had some iteration from there. But depending on where you live and what the environment was like for you, your parents, your grandparents, you could imagine someone that, say, their family has grown up on an Iowa farm and they've maybe only had three generations of people that have been exposed antibiotics and largely haven't used them or been ... Mainly haven't been exposed to them. Joel Salatin was just on, Joe Rogan was talking about how he will drink

out of animal trophies. He doesn't do the really murky, the old so long as the water's flowing and everything.

Robb: And he's done that virtually his whole life, and he literally, he's like, "I don't remember when I was sick last, not a cold, not the flu, nothing." This immune tuning is really, but that's one side of the thing. But what about this other side of pruning, say like the gut microbiome or the microbiome at large? And if you were to have, say like an inner city population that has lived in Chicago or Detroit or something and you've had three, four, five, six generations that have lived in an environment in which they don't have enough vitamin D, they've eaten more processed food and consequently, everybody has been sicker, multiple rounds of antibiotics, maybe getting tonsils removed it, et cetera, et cetera. Again, we don't have great data on this yet, it's very preliminary, and it's a very controversial topic to kind of dig into.

Robb: But it wouldn't be surprising that there would be some knock on effects to this. And this is something that I think needs to be well appreciated within public health and also personalized medicine is that asking where did your grandparents grow up? Were they on the farm? Did they live in the city? Did they have an auto immune condition? Did they use a lot of antibiotics? Did you as a kid use a lot of antibiotics? And if you go to someone like a naturopath or a functional medicine doctor, they will oftentimes ask these questions. Within conventional medical settings, these questions aren't really considered. And so they're not factored into the whole picture. And I know I'm kind of bouncing around here, but it's a really good question, Tim has a great question.

Robb: I think that as time goes on, we won't be able to ignore the impact of these kinds of multi-generational effects. At some point, we've got to start asking some questions, what are the things that we need to do to mitigate these impacts? It would be nice to have antibiotics as a backstop against dangerous infectious disease, but we need to get much better at doling these things out at the appropriate time. And something like 75 or 80% of antibiotics are used in animal husbandry, and that is leading to antibiotic resistance. That could change things a lot. But yeah, really interesting question and hopefully I touched on some of the potential features of this multi-generational health effect.

Nicki: Our next question is from Chris on non-paleo foods and colitis. Hi Robb and Nicki, I've had colitis since my late teens and consistent bowel movements, blood in stool, et cetera. My first couple of years dealing with flares, I decided to try a vegan diet and my colitis improved dramatically. However, I began to feel horrible and switched to a lower carb diet and then felt great. Now, almost a decade later I began having flares again starting at the beginning of 2020 and adding grains and legumes seems to improve the colitis and reduce my flares. I'm wondering if it's the fiber that is helping. As you know there's a ton of research supporting higher fiber diets and improving bowel conditions in some people. The problem is these are high carb foods. And both mentally and physically regarding body comp, I feel much better on lower carb. I'd love your thoughts on this, any suggestions are appreciated. You guys rock.

Robb: Man, again, this is one of these just super meaty topics. It would be awesome to get Chris Kresser, Dr. Ruscio, couple of other people to do a case review on this and look at a GI map test and you know it. This is a situation we're looking at the gut biome could be helpful or interesting. I've been really reticent to recommend that to many people because I think the testing is in a very early stage and we don't really know a lot of what to do about it. But the long and short of it, we see a whole host of different protocols help folks depending on their situation. Going a zero fiber intake is helping a lot of people. This whole carnivore and zero carb deal is helping a good number of people.

Robb: Within the more carbohydrate inclusive approaches, there's like the auto immune paleo approach, specific carbohydrate diet. There's three or four different iterations off that FODMAPs and histamine and whatnot. And this is where getting good at kind of the differential diagnosis I guess of what's going on can be really helpful because what's going to be great for one person is going to absolutely crush someone else. And just from my own experience for a big chunk of the GI problems that I think I've suffered over the last 20 years, a basic shift towards paleo really helped me a lot from the ulcerative colitis that I had. I just kind of had like loose stools and really inconsistent, have never really been on the constipated side of things at all. If I eat salads frequently, I could probably be a heroin addict and have no problem with constipation.

Robb: A couple of things are interesting there. I really whittled down the plant material that I consume and only eat the things that I do well with like artichokes, asparagus, some mushrooms, interestingly tomatoes even though I know some people are very reactive to night shades and tomatoes. Funny enough, I particularly like raw tomatoes. I do fine with those and eat them pretty frequently. So I have worked to keep as much breadth and depth as I can in my diet. Sitting down and eating a green salad now, I finally kind of figured out green salads are bad for me. And I see people that have prepped a green salad, I get like little stomach crampy thing. It's like, "Whoa, don't do it man." So again, this is where you need to get in and tinker and just do-

Nicki: Kind of experiment and see.

Robb: Yeah. Experiment and do what works.

Nicki: I don't know if Chris is eating a lot of uncooked greens because a lot of folks who have issues with that, if they switched to just mainly cooked greens and then also figuring out which ones you tolerate better than others. So it's a little bit of an experimentation process.

Robb: But it's interesting, and this is another one of these things where paleo as kind of a starting point, it's fantastic. Some people do notice that they're like, man, I feel better and I poop better when I put some oatmeal in or I do some hominy or something like that. It's like great. When we're trying to figure out what to do next, when you look at kind of the industrial food system and what we encountered, the food pyramid. It's like well, eat eight servings of wheaties or whatever per day to be healthy. And that might work for some folks. But for a lot of folks, it doesn't. Chris mentioned that he just

doesn't physically feel as good and the body composition isn't quite as good. I would be really interested to know what his protein intake is and the types.

Nicki: And what are the high carb foods that you're adding in that you feel are helping with the flares? Because maybe you don't have to go quite so high carb.

Robb: Or it may be a pretty high protein, reasonably high carb, very modest fat approach might be the way that we could strike some balance here so that we're getting that anabolic signaling, we're getting the satiety signaling to deal with the body composition and maybe normalize the blood glucose levels a little bit. And doing some things like eating the protein first, taking a walk after meals, doing some of these mitigating effects. But then again to your point, really looking at how much do you need to be able to affect this better digestion while also improving body composition.

Nicki: Our next question is from Erin regarding the urge for sweets even when satiated. Hi Robb and Nicki, I'm stumped by this. I suspect Robb talked about it in *Wired to Eat*, but I kind of want to hear you riff on it a bit in real life, IRL. I'm a health coach working with clients on metabolism stuff, and one of the cornerstones of my practice has been tagging to the feeling of satiety. By my estimation, eating to satiety is a simple secret weapon for those looking for freedom from hungriness and all the downstream effects that urgent hunger presents. I mentor my through this in a very gettable way that includes meal composition, prioritizing protein, de-emphasizing carbohydrate and some circadian meal timing stuff like front-loaded feeding. Without fail, I hear this even from some of my longterm successful clients, "I get that and I love it. and I do eat to satiety and it feels amazing, but sometimes after I eat, even though I'm totally satiated, I want a little something sweet." Sometimes right after eating dessert, sometimes a very short while after an evening snack when the satiety from supper should still be going strong.

Nicki: I want to pause to mention that I don't think there's anything wrong with having a little something after a meal if it feels nice and isn't derailing your efforts and isn't waking up the sugar dragon, but these tiny little treats are probably not that egregious in the grand scheme of another wise and metabolically supportive eating paradigms. I'm not worried about them metabolically, but it flies in the face of my theory that satiety is the cure for snacking cravings and unmanageable food urges, and that's really annoying. How could a satiated person still feel a call to reach for something else to munch on? I know there's a ton of behavior and psychology at play here too, but I'm more curious about the biochemistry and the neuro regulation of appetite stuff. What am I missing? Part of me thinks, well, you must not have been satiated enough, but that answer feels too neat and tidy. And I suspect there's some nuance that I'm incapable of wrapping my head around. Can you wrap your head around it? So much gratitude for you both in this awesome educational platform. Erin.

Robb: We could make something up. I don't know if we can wrap our head around it, do you have any thoughts on this?

Nicki: I'm wondering how much of it might just be boredom. I think a lot of people, you're full, but you're home and other people in the house. I feel like especially in this time, there's

a lot of boredom eating going on. And obviously, I don't know when she submitted this question, it could be pre coronavirus.

Robb: I was thinking something similar and I was also noodling on just the proximity piece. If we have some dark chocolate in the house, I have a piece of dark chocolate after breakfast for crying out loud. If we have it in most meals, I end up doing a little bit. And if we don't, I go kind of rifle in there and I look around, I'm like, "We don't have anything," and then I just go about my business. So I don't know that I would look at satiety, getting it right doesn't necessarily mean that you don't want anything. We saw some of this with the man versus food stuff. You will hit satiety eating a chocolate sundae at some point, and this satiety will become so profound that you'll want to throw up eating more of the chocolate sundae.

Robb: But man, if you can put down a little bit of extra salt to the extra crunchy French fries, all of a sudden you're able to bypass that society. And that's really good evolutionary wiring from the perspective of a critter that you still live by its wits out in nature. It's a very maladaptive process now that we have effectively infinite access to food and not exposed to the elements and whatnot. So I agree that there's probably a boredom piece there. And I also suspect that it's just kind of a proximity thing. If you know you've got something around, your head is going to go to that.

Nicki: Which is where the don't keep it in the house-

Robb: Don't keep it in the house.

Nicki: If they're able to.

Robb: It would be interesting if you just kind of queried people, like if you could set up effectively the same meal plan two weeks in a row. And one week you had some dark chocolate on hand, and the next week you didn't. And you knew that for a fact in both scenarios, which one of those do you consistently feel the need for a sweet treat after eating? And I suspect if you just know that you have nothing, there's just literally no option there other than getting in the car, driving to the store. A fairly onerous process, which we know mitigates the tendency to overeat. It would be really interesting to see if that alone if people self-reported, "Oh yeah, I just didn't even really want it." Because your brain just really quickly does a survey. It's like, "The candy I hid from the kids after Easter, that's all gone." You go through your checklist and it's like, "Okay, the house is empty, we have no options." So you have no desire for it because it's not immediately at hand.

Nicki: That's a good point. If we could set up that kind of experiment where there's nothing else in the house other than-

Robb: Your basic stuff.

Nicki: Real food, your basic stuff, they eat a great dinner full of protein and good stuff and then the brain knows there's absolutely nothing else in the house, would the urge still be there?

Robb: Right, right. I know that when we are sold out of chocolate, I just don't even bother. In the back of my head, I'm like. I know we don't have anything, so I just don't even bother going in it, doesn't really strike me to do it. But if we've got some back there, then most meals I'll go do a little one or two square top off afterwards. And half the time when I do it, I'm kind of like, "I didn't even really want that." And then the chewing up of it, I'm like, "This is okay, but it's not that great." But I do it anyway, and that's that proximity and how easy it is. I think we've talked about this before. There were some fascinating studies where they looked at peanut M&M consumption, which I don't know that you could find a more perfect cocaine food than peanut M&M's.

Robb: But they looked at consumption where folks had a bowl of peanut M&M's on their desk. And the next scenario was they had a drawer where they had to scoop back, open the drawer. And then the next one they had to walk across the room. It was like an office settings, and it was kind of like the walk of shame, everybody would razz each other because it was this one spot. And if you went there, everybody knew you were going to raid the M&M's. But just between tabletop versus desk, it cut the consumption by 50%, and then table top versus-

Nicki: Because it wasn't visible, it's in your drawer, so you-

Robb: It was just you had to scoot back and open the drawer and scoop down. And so you're kind of farting around there, you're not really working where it's like you could be working or providing the illusion of working while stuffing M&Ms down nonstop because it's just there. But that little extra bit, that little speed bump of just opening the drawer, reaching your hand down and then you got to shut the drawer because you don't want people walking by and like, oh, you're pilfering the thing again. It was interesting. So the drawer cut it by 50%, walking across the room cut it by 90%. So even in that context, just the immediacy is so powerful there.

Nicki: All right. Hopefully that was somewhat helpful, Erin.

Robb: Probably not.

Nicki: All right, it's time ... Oh, I almost spilled my water. It's time for The Healthy Rebellion Radio trivia. Our episode sponsor, Paleo Valley is giving their immunity bundle, which includes essential C complex, turmeric complex, and grass fed beef sticks, and those are tasty folks, to three lucky winners selected at random who answer the following question correctly? I think I know the answer to this, Robb. What is your favorite new bug that you've discovered since moving to Texas?

Robb: I got to go with the walking stick, they're pretty bad ass.

Nicki: They are super cool, and they come in all shapes, well, not shapes but sizes and colors. We're really seeing there's-

Robb: They're greens and oranges.

Nicki: Orange ones and green ones and gray ones.

Robb: And they appear to be eating the aphids off of our rose bushes, which is cool. So yeah, walking stick.

Nicki: Walking stick, okay. All right folks. To play, go to robbwolf.com/trivia and enter your answer. We will randomly select three people with the correct answer to win Paleovalley's immunity bundle. The cut-off to answer this week's trivia and be eligible to win is Thursday June 4th at midnight. Winners will be notified via email, and we'll also announce winners on Instagram as well. And as always, this is open to residents of the US only. And our fourth question this week is from David. He's curious about natural supplements for BPH, which is?

Robb: Benign prostatic hyperplasia.

Nicki: Okay. David says I'm looking for a safe and effective supplement for benign prostatic hyperplasia. Did I get it right?

Robb: Yeah.

Nicki: That is also safe when I drink beer. That's the question. It's a one liner, this one's short.

Robb: Nicki, the other day, she was like, "Okay, I've got one for you." And she read this to me and I just started laughing. I'm like, "Sure, let's do this one." First, I will go out on a limb and say that of the booze options, beer is probably one of the less good ones for prostate health because of kind of the hoppiness and the estrogenic compounds and all that stuff. But I get it, beer is amazing. Won't dissuade you from that. But I've dug around a fair amount on this and there's a product from Life Extension research, their ultra prostate formula. It includes a mix of herbs and nutrients that have some good clinical data on addressing the different vectors that can be involved in BPH. And what's interesting about this situation is for some people testosterone directly is a problem for the kind of increased prostate glow growth. For other people, it's the dihydrotestosterone, which is a testosterone metabolite, which is really important for hair function. And it's part of the driver of male pattern baldness and stuff like that. But it's really critically important for athletic success and sexual function and whatnot.

Robb: But other people, estrogen or other estrogen metabolites can be drivers of BPH. So we don't really know exactly. We know that there are several things that can be factors. I wouldn't be surprised if all of them kind of work interchangeably. And so these multi-angled mixes like what the Life Extension folks have put together, it has great clinical backing in reducing the symptomology with BPH, which is basically incomplete urination and needing to wake up in the middle of the night to pee and all that type of stuff.

Again, the formula specifically, I don't know that that one has had clinical trials on it, but the constituents in it, you can find lots of clinical trials on those and then they've basically stuck all those together.

Nicki: Okay, cool. Our final question this week is on metabolic inefficiency for eating more food, and it's from Claes. He says a Swedish name. If you try to pronounce class in a posh English accent, you'll hit close to the mark. So I'll say Kloss. Hi guys, I've got a question that I'd love to hear you answer. Robb, you've spoken earlier about some kind of metabolic efficiency that seems to occur when you've been eating keto longterm. Luis seems to maintain on a very, very low calorie diet even though he's both muscular and active. Now, I thrive on keto, but I also love food. I have no interest in trying to attain this metabolic efficiency. And I'm wondering if there might be any strategies that I could try to use in order to keep my energy demands nice and high. Will cycling between periods when I eat carbs be a way to go or do you have any other ideas?

Robb: Really interesting question. Robb, how do I eat healthy but yet-

Nicki: Eat a lot.

Robb: Eat like a starved hog? This efficiency doesn't occur with everybody or seemingly it doesn't. We've observed some folks that ... Some guys within the keto game scene, they're about the same size, same muscularity as Luis, and they're literally twice as much. And some people would say, well, Luis's metabolism is broken. No, his fucking metabolism is not broken. He is one of these people though that has reached this kind of interesting thermodynamic efficiency where he just doesn't need that much food comparatively to motor along well. And it's interesting from a longevity perspective, there's probably a good element to that because even though I've been kind of peeing down the back of calorie restriction and whatnot, there is just kind of a reality that if we don't overeat, that seems to be good.

Robb: And so overeating for Luis would be eating at the levels that are generally recommended for the populace at large, any given size or activity level or what have you. But that said, there are some people that just seem to need more calories to be able to motor along. And so this is something that you're not really going to be able to pick. You are going to eat how you eat and you're either-

Nicki: The lottery for your genetic-

Robb: Yeah. And you're either going to be lean and healthy or some iteration of not lean and healthy, and that's just kind of the way it is. One thing that Luis has done is he typically does two meals a day. He will do a pretty robust breakfast. And then he does a pre-workout keto games, coffee, which is coffee, some creatine, some whey protein, a little bit of MCT, a little bit of glucose or dextrose. And that's his pre-workout meal, and then he eats a big dinner. So even at eating around like 1,700 calories, he does a breakfast and a dinner that's split between the 1,800 calories, let's say. It's a pretty robust meal anyway. And so one of the ways that he has kind of gotten around that because he will admit, he likes to eat big when he eats, but it kind of improved the efficiency of his life.

He's got great performance and body composition from doing all this. And then also when he sits down to eat, it's a robust meal and he's totally satisfied and no problems there.

Nicki: I mean, it seems like if Kloss' body composition is good, choose protein first, low carbohydrate sources of vegetables, berries and that kind of thing to the degree that you can tolerate it. If you're hungry, eat more protein as long as that's not affecting your body composition.

Robb: Yeah, yeah. But I'm reading between the lines here, I'm wondering if there's a little bit of a cookie monster hiding in there or something like that, I don't know, I don't know.

Nicki: A keto cookie monster.

Robb: A keto cookie monster. And again, the first time that this really got on my radar was talking with Greg Glassman, the CrossFit founder. And he was talking about people that adapted to the high-fat zone diet. Once they got leaned out, then they started ratcheting the fat up. The protein was kind of low by our standards, and using percentages is always kind of dodgy, but it was like 17% protein, about 65% fat, the remainder carbs. But it wasn't far off of ketosis. And also people were generally encouraged to eat whole foods and not rely on beer and pretzels and jerky for their zone macros. And what he observed was that people motored along 25 maybe 30% fewer calories than what you would normally think that folks would need. He rightly observed that that was some type of a thermodynamic efficiency and that there might be some ... What's interesting is at that level you're right in the strike zone with what calorie restriction studies generally put animals on, but it's in a way that people generally-

Nicki: You're not starving and wanting to eat your arm off.

Robb: You're not starving, it's spontaneous calorie restriction. And one would argue it's restricted relative to I think eating a nutrient poor, hyper-palatable diet where it's just very easy to overeat. It's an interesting question, it's almost as good as how do I not blow up my prostate while drinking beer?

Nicki: All righty guys.

Robb: That's why we're here trying to answer the questions.

Nicki: Let's see, that is our fifth and final question for this week. Please check out our show sponsor, Paleovalley and grab some essential C complex. Go to Paleovalley.com and use code THRR10, stands for The Healthy Rebellion Radio, THRR10 for 10% off your order. Share this episode, please leave us a review wherever you listen to your podcasts. What else, hubs?

Robb: Sacred Cow is soon to be released. And I know we've humped many a knee already.

Nicki: If you haven't pre-ordered, please do that.

Robb: The reason why ... And again, I always feel a little weird, I'm asking you to buy a book for me. And yes, I will benefit from that financially in theory at some point. But the deal is that within the COVID age, bookstores are not open. Amazon is not really handling books the same way that they once did.

Nicki: We need the pre-orders to signal to the publisher for these outlets. These outlets then place an order with the publisher if they're seeing demand early. And then the publisher will print more books. So that's what we're-

Robb: We're hoping to make the New York Times bestseller list, and when you make these bestseller lists, people disproportionately support the book. The thing is, is if bookstores or Amazon or Barnes & Noble, whoever you're getting it from, if they run out of books, although they can sell them and kind of hold them in queue, if they're not delivering them, they don't count. And so we could go on the list and then fall off, and it's a bastard to get back on there. And it would make the media that we would get and all the stuff like that really difficult to maintain. So if you have any inclination to get the book, getting it in the pre-order period would really help us it time.

Nicki: Yeah. Thanks folks, and we'll see you all next week.

Robb: Take care everybody.