

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.

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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: Welcome back friends-

Nicki: Hello-

Robb: ... neighbors, loved ones.

Nicki: ... everyone. Welcome to episode 144 of the Healthy Rebellion Radio.

Robb: I'm giving you the power to drive, babe.

Nicki: Thanks.

Robb: Don't let it go to your head.

Nicki: I won't. I won't. I like being the one wielding the mouse. Okay, well, thank you all for tuning in yet again. Thank you for listening to our last episode, the Freedom to Transact. We did get a lot of really good feedback, and some good questions on that episode, so thank you. One common question was, or sentiment was, "Okay, this all makes sense. I'm in, what do I do? How do I do it? What is the best way to get started?" So, I am going to put some time into compiling some resources in that department, just to help. I think part of it is something like a new technology can seem so foreign if you've never used it before, and you've never purchased any, you've never sent it to anybody. It's all very theoretical until you actually get your hands on it, and so I'm going to devote some time to putting some stuff together so that folks can do that.

Robb: Awesome.

Nicki: Yeah.

Robb: I have to say, just backing up a little bit, it was that intimidation of jumping into the pretty modest technology, that prevented me from buying a thousand dollars of Bitcoin, in 2012.

Nicki: Yup.

Robb: Again, we're not presenting this as this get rich quick speculator thing, and I know that so much of crypto is couched in those terms, and even some of the NFT stuff. This is really just trying to find a way to create a decentralized approach to the freedom to transact.

Nicki: Mm-hmm. Yeah. One question that came up was, "Are you suggesting that this is how we need to do business, and transact, in our everyday lives?" Of course, no, that's not really even possible, today, in the United States. You can't take your Bitcoin or your Ethereum down to Safeway or the grocery store, and buy your groceries. You can't pay your bills with it, currently, as far as I know, and I know there's stuff being worked on in all of these areas, but in some countries it is possible. I saw a picture online of somebody was down on a beach, I think somewhere in either South America, or Central America, and it was like, "Scan this QR code to rent your surfboard with Bitcoin." So, that stuff is happening and it is available in other countries. Not to my knowledge, very widespread here. But again, the whole point is that this technology does exist.

I think the more we can get people to understand what it can do, the more we get people to understand that we need to protect the freedom to transact, at all costs, and that a central bank digital currency, what is going to be trying to be foisted upon us, is not what we want and we need to collectively reject that. That was the main point of the episode.

Robb: Cool.

Nicki: What was I going to say? There was one other thing that I was going to mention, but it's escaping me right now. Okay. Well, if it comes back to me, I will interject.

Robb: Okay.

Nicki: Let's see. What else do we have at the beginning here? I think we're ready to move on to our news topic.

Robb: It's up to you, if you want to talk about some of these other things, and so it's we have a-

Nicki: Let's talk about this other one first, and then we'll go to your news topic-

Robb: Okay.

Nicki: ... that's more regenerative ag related. We have been, I think, we've mentioned, Mike Rowe, on the last three episodes just in passing. He's obviously as many of you know, the Dirty Jobs guys had a TV show on... Is it Discovery, babe?

Robb: Yes.

Nicki: For ages, and he has a podcast, and we've been listening to several of his episodes, lately. Very entertaining, often very light, funny. It's nice, a nice reprieve from some of the more doom and gloom stuff out there. But, one that we listened to recently is episode 294, and the title is The Ballad of Tom Odom. In this episode, he has a gentleman on, and I didn't write down his name, but he is...

Robb: The head of a think tank.

Nicki: A California-

Robb: California-based think tank trying to advocate for free markets and access for direct work and a reasonable-

Nicki: A fascinating story. This guy was at one point, he called himself a communist and-

Robb: Well, no, he was a literally card carrying communist. Yeah.

Nicki: Yeah, and then has come completely full circle. So, the whole episode is about a bill that passed in California called AB 5, which basically makes it illegal to work as a freelancer. Now, apparently when this bill was passed, it was targeted at Lyft and Uber and DoorDash and some of these companies because it was saying that the people that were freelancing for these companies were being exploited. Well, it's now mainly, well, the episode is talking primarily about the trucking industry. There's 70,000 independent truckers in California that now can no longer be an independent trucker. They have to be an employee of a larger centralized-

Robb: Monopoly.

Nicki: ... monopoly trucking industry. So, some of these truckers are leaving the state, it's going to cause crazy supply chain issues, and they actually had one of these truckers on, his name is Tom Odom, for a brief bit, and I think Mike was going to do a separate episode just with him. But anyway, super important episode and it doesn't just apply to California because apparently this bill is being held up as being such a success in California that now we need to take it nationwide. So, that means no freelance workers, which is a huge part of our national economy.

Robb: I don't know the numbers on this. Somebody that we were talking to opined that it represents a larger segment of the workforce than the employed direct employer workforce.

Nicki: Even so this man, this truck trucker, Tom Odom, like got his GED, didn't go to college, grew up on the Eastside of LA, and has built an amazing business for himself. He brings home six figures a year, and now he's having to leave the state that he has called home for-

Robb: And doesn't want to leave.

Nicki: And doesn't want to leave, but he's going to leave, he's going to move to Texas. He mentions that he's fixing up his house, because when you put your house on a market, you got to do some repairs to make it more sellable. His contractor can't hire subcontractors because those are traditionally often freelancers, and funnily... This isn't funny, but fittingly, I guess is the word, Uber, DoorDash.

Robb: So, the reason for this original AB 5 bill was supposed to tackle the, "Gig economy." Uber, DoorDash, Lyft, those sorts of things. Part of this is couched in this kind of do-gooder thing that people are being exploited. It's always, "Oh, we got to do it for the people." There's arguments for that, there's situations where that certainly occurs. But, what's happening, what happens specifically in this, is that Uber and DoorDash and the other entities that were initially the specific targets of this bill paid \$200 million to get a line item exclusion for themselves.

Nicki: Yeah. So, they can still operate as freelancers and independent contractors, but now the bill is targeting everyone else.

Robb: Now, all these other entities, and it goes from nail salons, personal trainers, handyman, on and on and on, just so many different things. What it's creating is a consolidation of power and a complete destruction of competition. What was explained in this one piece, and I think that they will dig into it further, is that the Teamsters Union and the few consolidated companies that really represent that bulk side of trucking, they will have effectively a total monopoly, because historically, these freelancers have been the ones nipping at the edges and offering sometimes much better rates, much more compassionate and value-driven exchanges, because if they do a shitty job, word gets around and they don't get rehired. How many times have we phoned into the monopolistic phone bank of a utility of some big cable at institution when there's no competition-

Nicki: There's no customer service, they don't give a shit about the customers.

Robb: No customer service. They don't give a shit about what they do because you don't have-

Nicki: You don't have another choice.

Robb: ... any other option..

Nicki: Yeah.

Robb: So, I know there are a lot of people out there that for be more elegant on a better day, but for bleeding heart reasons, think that the state needs to come in and intervene and take care of these people. There's always the option to go get your job with an established entity.

Nicki: Well, and that was the point, these people, they've made a choice to work this way, it works for them, they want to set their own hours, they want to be free, they want to be their own boss. They don't want somebody to tell them when to show up and what...

This particular trucker, he works when he wants to work, and he works a lot, he works his ass off, but that's the life that he's chosen.

Robb: They use an example of a single mom who is putting herself through school and she has a really long commute in Los Angeles to go from her home to the university that she's taking night classes, and not infrequently, she'll flip on her Uber, her Uber or Lyft thing, and she'll be able to defray the costs of going from point A to point B within-

Nicki: With a rider. Yep.

Robb: ... that transportation. I guess that's still there because Uber and those guys line item themselves out of it. But anyway, this is, again, really part and parcel to the freedom to transact, like it is being for sale-

Nicki: The freedom to work the way that you want to work.

Robb: Well, it really is the freedom to transact. At the end of the day, I would like to be an independent contractor, and Nicki, I'd like to do some work for you, and you can 1099 me when we hit that threshold, and we should be good. Or, I have to go find the monopoly locally that I have to kowtow to to whatever it is that... And you think about workers' rights and taking good versus poor care of people and everything, like this is... When things get monopolized, it never really... Sometimes there's value. You could argue that Amazon is kind of a monopoly in some ways, and I got to say, being able to get shipped to your door, the way it is, it's pretty cool. But also, I will, to their credit, if something goes wrong in that process, you usually can get it rectified fairly quickly, so maybe I'm undermining my own point here, but it seems rare that the monopoly really does fantastic customer service there. Anyway.

Nicki: Yeah, I would agree. Just on the topic of decentralization, it seems like consolidating power into fewer and fewer hands regardless of the industry or regardless of the situation, it never ends up being the best thing. So, anyway, it's a fantastic episode. I'm going to link to it in the show notes. If you don't want to go find it in the show notes, just download Mike Rowe's podcast. It's called, The Way I Heard It. This is episode 294, the Ballad of Tom Odom. His episodes are hilarious.

Robb: The ads are amazing.

Nicki: He does a fabulous job. If I had a better voice, I would sing my ads the way that he sings his, because they're great. The girls are always laughing when he is doing it, because he used to be an opera singer, so it's fun. So, anyway, definitely check this out. It's super important. We do not want this to go nationwide. If we think we had supply chain issues during COVID... I mean, they gave that example. Like now in California, this guy can drop off a load in California... Wait, could he-

Robb: He can bring things into California-

Nicki: Into California.

Robb: ... but he cannot pick up in California to then take things out.

Nicki: So, then he has to drive empty to Arizona or New Mexico to load. There's just so much inefficiencies that have been inserted into this whole process because of this bill.

Robb: So, just to beat this dead horse a little bit, folks are concerned about climate change, folks are concerned about resource allocations. This stupid goddam bill is now causing tens of thousands of truckers to drive-

Nicki: Empty.

Robb: ... empty.

Nicki: Wasting fuel.

Robb: Wasting fuel. This is inevitably... Maybe sometime we should link, I think we've linked to it once or twice, the Unintended Consequences by Reason Magazine.

Nicki: Oh yeah. Some good videos there.

Robb: But, this is classic unintended consequences. Like the better... This is why I'm a kind of a small-L libertarian heading towards a big-L Libertarian. When you get in and start thinking that you're going to improve things, and it's by more regulation, it virtually never works out that way, and it is always couched in terms of, "We're going to protect and take care of people." And it always ends up consolidating power for the people that are already at the top of the food chain, it does not help the individual.

Nicki: Who then keep filling the proper political coffers, and so the cycle is virtuous and ever completing itself.

Robb: Or consuming itself.

Nicki: Or consuming itself. Yes, that's a better way to put it. Okay. You have another news topic here.

Robb: Do you want me to just punt that one to next week?

Nicki: We can.

Robb: Okay.

Nicki: We can.

Robb: We can.

Nicki: Okay, we'll talk about that one next week. All righty folks. As you know, the Healthy Rebellion Radio is sponsored by our Salty AF electrolyte company LMNT. If you live in a

cold snowy climate like we do, if winter seems to be unrelenting, you might want to try a hot mug of LMNT, because just because it's cold doesn't mean you don't need electrolytes, and drinking your electrolytes hot is just the extra bit of warmth that helps take the chill off. We at LMNT are down to the last of the supply of chocolate medley. The chocolate medley box, as a reminder, comes with 10 chocolate caramel, 10 chocolate mint, and 10 chocolate salt. So, cozy flavor for everyone. If you want yours, be sure to get it before it's all gone.

I did want to share a common request. This one's from Jeremy, he's a member of the Healthy Rebellion. He says, "My girlfriend requests that you make full boxes of the chocolate caramel. She literally goes through all the boxes and hides the caramel from me. The caramel's exceptionally great in homemade ice cream, really comes through in the chocolate dairy-free ice cream that I make. So, please and thank you." And as I told him, we've gotten that request a ton and so I said, "I've just shaken up my magic eight ball and it says, 'Outcome likely.'" So, we'll see when that happens.

Even if you don't live in a cold snowy climate, there is a flavor for you. So, you can grab your LMNT and remember our value bundle. Now, we're calling that now The Insider Bundle because it has a lot of extra perks that come with it. You can get that. You can buy three boxes of your favorite flavors, mix and match whichever flavors you prefer, and get your fourth box free. You can do that at [drinklmnt.com/robb](https://drinklmnt.com/robb). That's drink L-M-N-T .com/R-O-B-B. Yes, I wish I had a better voice because I think I can sing that.

Robb: Nicki would be singing that one.

Nicki: I'd be singing that one. Okay, we have three questions for you all today. The first one is on muscle protein synthesis from Laura. "Hi, Robbie and Nicki." Not many people call you Robbie.

Robb: Not too many. "Robbie, love you kid."

Nicki: Two people call you Robbie, Greg Glassman and John Welbourn. Yes. Okay, Laura, you can call him Robbie too. "Hi, Robbie and Nicki. I am a 45 year old female and have been listening to lots of things protein related recently. Seems like experts from many backgrounds seem to agree on the importance of protein, especially as one ages. Meeting a losing threshold in a meal seems to be a common consensus as well. I love meat and hit that target with no issue three times per day. However, what I have never heard any of these protein experts talk about is a stimulus threshold for MPS or muscle protein synthesis. They all talk about weightlifting being an MPS signal, but I've never heard of a minimum required dose. I was wondering if in your reading or learning, you've heard anyone talk about the minimum strength workout needed to initiate MPS. Or, is it relative? Like my doing two sets of max rep pull-ups gets a little MPS going, but an hour long leg workout with leg press dead-lifts, RDL split squats triggers more. Any insights here would be appreciated?

Robb: Laura, this is a great question and not my perfect center of my wheelhouse, but I've got a little bit of background in this and did a little bit of poking around. Stimulus is what

you're asking for. How much stimulus do we need to initiate muscle protein synthesis? There's a couple of variables out there. Over the long haul, progressive overload is what wins, and for progressive overload, we're either moving more weight or we're moving the same weight for more reps, and that's kind of the thing that will move somebody the most generally in gaining muscle mass. That stimulus though, what's interesting, if you're really, really honest about the minimum effective dose, this is where the high intensity training stuff comes in. Mike Mentzer, Dorian Yates, some of those types of bodybuilders are pretty famous for this. It seems like a one set, or nearly two failure is all that you need on that particular muscle or muscle groups.

Some of the problem with that is that, let's say, you're doing a bench press, there are going to be some muscles that fail or fatigue earlier than others and so the ones that weren't brought to complete muscular failure don't always get stimulated. So, this is where it gets complex to be able to... You need to do different movements or you need to do some amount of isolation movements in addition to this type of stuff. But, really the science is pretty clear that a single set to failure or near failure is about all that you need to be able to stimulate some muscle protein synthesis.

But, the flip side of this is that, when we're also pretty honest, it's fairly clear that the total volume of work done does seem to lead to increases in total muscle protein synthesis, and some of the numbers that are thrown out there is about 15 to 20 sets per week per muscle group to really be able to optimize this, and if the goal is specifically hypertrophy, and the flip side of this could just be trying to maintain muscle mass, although maintenance arguably should be a little bit lower volume than what this is, but assuming calories are adequate and protein is adequate than that 15 to 20 total sets per week, if we're looking at that more volume-centric approach.

Both of these things work, both of them, whether the volume-centric approach or the high intensity training approach, they have to have some amount of progressive overload attached to it. I would say that some of the problems with the high intensity approach, God damn it hurts. Like Sarah's been having us, one of our primary movements is a Bulgarian split squat and it's like take it to failure in between 30 to 60, a load that makes you fail between 30 and 60 seconds, and she wants it to be legitimate failure, you can't get another rep, maybe your last eccentric is you're left buried in the hole. It fucking sucks.

This is some of the criticism of relying specifically on the high intensity training methodology is that at some point it just becomes psychologically kind of a grind. You're almost like sick and nauseous looking at that deadlift bar, looking at that back squat bar, or whatever, and thinking about like, "If I'm going to make progress, I got to go to failure on this thing." Versus some stuff like you do a three sets of five on a back squat, and then the next week you do four sets of five, five sets of five, and then you go back and you add five pounds to that movement, and three sets of five, four sets of five, five sets of five, reverse and go.

You will get stronger and you will make progress on approaches like that. I think it can be a little bit safer orthopedically because it gives the body time to adapt. Psychologically, it doesn't dig quite as deep of a hole, but this is where the pissing

matches within strength and conditioning get pretty epic, because there is a reality that when you look at just the brass tacks need for stimulating muscle protein synthesis is going to or being very close to failure.

There are other characteristics with this stuff though. When you start getting at higher levels, like improving the neurological efficiency of a movement allows you to recruit harder and more motor units, and then that can lead to better gains, and this is where the multiple set approach is valuable because you're actually training that movement as a specific skill. It's not just doing exercise for the strength of exercise, you're trying to get more efficient at that skill. But, then the flip side of that is that the less efficient we are at a particular activity, sometimes the greater the training stimulus. So, this is where I think that we need to have some periodization plugged into an approach. This is also where the west side conjugate method where you've got some max effort, you've got some higher rep hypertrophy work, and you've got some speed, some rate of force development type work in there. Then we're hitting all these different or many of the different characteristics of the strength work.

Then I guess a hat tip towards some of the work that Sarah and Grayson are doing with Basis New York, and what functional range conditioning is doing, like the internal strength model, they're using the conjugate methods, so they'll do rate of force development work, they'll do hypertrophy work, they'll do max effort work, but they're also doing it for what we would normally consider weird movements, but they're completely natural movements. We just historically applied this to squat, deadlift, bench, pull up, stuff like that, but they're doing it with internal external rotation of the hips and the shoulders and loading the knees and stuff like that with short arc movements.

So, I don't know if I totally answered all that, but I think that... There's a guy, Clarence Bass, who was pretty famous as a master's bodybuilder, and had some really impressive low body fat levels, and a phenomenal physique, and he really relied on this just simple periodization of starting off a movement, again, with maybe three sets of five, then four sets of five, five sets of five, go back, add five pounds or 10 pounds, repeat that cycle, and maybe you carry that cycle through for a movement three, four, five times with that, maybe you carry it until it starts plateauing out and then you change the movement and then you do something else.

Something else that I remember reading recently is just simply... Oh, this is what it was, the Huberman lab interview with Dr. Andy Galpin. You're having a plan that's got some structured progression to it, is more important than the actual stuff you're doing. So, it's just so long as there's a plan, so long as-

Nicki: You're doing...

Robb: ... there's some thought towards progressive overload and you stick to that, that ends up ultimately being more important than any one of these one specific modalities.

Nicki: Good stuff. Okay. Our next question is from Amy on if there's a different approach for early onset Parkinson's. She says, "First I want to say I love you guys. I'm always trying to obtain more knowledge in the health and wellness field, as a firefighter/paramedic and fitness coach part-time. Your show is easy and fast knowledge, plus I love LMNT, the chocolate medley is my favorite. Now, my question. Recently, my husband had a hand tremor experience, early in the morning in bed where it woke me up. He didn't mention it for a couple of days, but when he did, I realized it concerned him as well. He is your typical male that doesn't want to seek medical advice and had to be dragged to the doctor years ago when I suspected a DVT, we found out he had the largest his physician had seen from his ankle to his hip, and three Pes." What's a PE?

Robb: I'm not sure on this.

Nicki: "Pre-COVID..." So, he's not vaccinated. "We found out it was a genetic disorder. Since the tremor, in my own research, I feel like he has a lot of early signs for Parkinson's, which I may be me jumping, but so was the DVT at the time. But, this is so concerning. We take a more functional approach to our health and I was wondering your thoughts on that for Parkinson's. I have a previous client where we found weight training really helped his tremors but also any emotional response could make it worse. My husband is healthy, 45, weight trains multiple times a week, and does a lot of Zone 2 Training. Only medical history is the clotting disorder for which he takes Eliquis. Sorry for the long question. Thanks in advance."

Robb: Can you scroll down just a little bit? So, not remotely a doctor, and so my first recommendation would be to find one or two people that are absolutely top of the food chain experts on this stuff, and I would find somebody that's an expert in diagnosis of early stage Parkinson's, and this also, when you're describing it, sounds a lot like essential tremor syndrome. It's calling out to me, although if his hand tremor was significant enough to wake you up, then that sounds like something more severe than essential tremor. But, it sounds like something at least in those neighborhoods, and if you've got to travel, if you need to do a teleconference or whatever, but I would find somebody at some Ivy League school that is the absolute world expert on this stuff because this is all that they see, this is all that they do, and I think that the likelihood of both finding screening and also just this stuff pinging their spidey-sense, because they see this stuff all the time, this is what they do.

A local neurologist or something, like he or she may be fantastic, but god dammit, a real legitimate expert is just so different than a jack of all trades type person in this situation. Like finding a legit expert, I would highly recommend. Beyond that, there are some metabolic therapies that seem to be beneficial for at least some types of Parkinson's manifestations. Some deal with essential tremor syndrome. That puts a hat tip towards a ketogenic diet or an MCT Modified Atkins type diet where you're doing a lower glycemic load, higher protein, and then relying on your ketone experience from a relatively low carb and low glycemic intake, but really being augmented with the C8 enriched or purified MCT oil, which I think is much, much easier to do and probably more benign on physical performance, and just provides a lot more latitude with what you can do.

Lion's mane mushroom has some really fascinating neuroprotective characteristics and it's being studied in a host of different neurodegenerative disease scenarios and it shows some really remarkable promise and it's relatively inexpensive and the downside seem to be none or completely minimal, and then if y'all have been listening, I've been tinkering with this high-dose thiamine, and I'm currently at about 300 milligrams of the Benfotiamine version of that thiamine. The literature on this suggests that the therapeutic window is anywhere from 300 to 1200 milligrams per day, so I'm going to slowly start stair stepping that up and see what I get from that. I think I've seen improvement. Generally, I think it's better, but I've had some days where I was an absolute hot mess too and I don't know what the deal was with that. Definitely being agitated, excited can worsen all that stuff.

So, those are my initial thoughts, but again, I would really seek out an expert. If you live in a big metropolitan area, it might make it easier to track somebody down, but I would do some poking around to get a list of maybe five really top level neurologists or experts in the diagnosis treatment specifically, or people looking specifically at characteristics of early Parkinson development, and I would throw that essential tremor in here too.

Nicki: Awesome. Amy, keep us posted. Let us know what you guys end up doing, and if any of that works, and if you do end up working with somebody, just ping us an update.

Robb: Yeah, and just really quickly, there is, I think I've mentioned this in previous podcasts, there is a transcranial magnetic stimulation therapy that's being used and seems to show some promise for both Parkinson's and essential tremor. I haven't investigated that beyond just looking at the website, but there are other things out there, but I would do the best job you could to figure out specifically what you're dealing with, and then we can start putting together a plan from there.

Nicki: Cool. Okay, third question this week is from Don on kidney function and protein as we age. "Hey Robin, Nicki. A friend of mine in her late forties is following a mostly paleo diet and has been increasing animal proteins and working on resistance training to increase muscle mass the last few years to help with healthy aging glucose control, maintaining function, etc. She's recently started including creatine supplementation to help with brain and muscle function as per all sorts of recommendations from various people in the healthy aging and menopause space. She has relatively low body fat, visible abs and shoulder muscles, and has only a couple drinks a week, and she uses LMNT daily. She just received blood work results showing higher than normal creatinine and ALT levels and is wondering whether to stop creatine supplements.

Also, she'll be booking in to see a renal doc to discuss further, but is worried because all conventional advice for kidney disease appears to be go on a low protein diet, eat vegetable oils, healthy whole grains, etc, which completely flies in the face of her experience of better health and body comp for years, on a more ancestral diet, ancestral style diet with increasing protein over time. She has experienced several UTIs in the last year, which could be due to estrogen dropping posts hysterectomy, therefore she is menopausal, and recently had COVID, so there is a history now of urinary infection and it seems that some people experience renal issues post virus.

Any suggestions on protein and creatine, resources we can research so she can make informed choices. It's scary that the conventional dietary changes are totally opposite what someone needs to do to retain good muscle mass as one ages, and they seem to promote higher glucose levels over time, which we know will lead to diabetes. Thanks so much for any light you can shed. It can be difficult when you're trying to buck the normal trend of decline with middle age by doing seemingly the opposite of what the doctors tell us to do.

Robb: Man. So, quite a few things in this but it's well understood that supplementing with creatine will elevate creatinine levels. A high protein diet will elevate creatinine levels. There's nothing pathological about that. All that it is is... Also an increased exercise will elevate creatinine levels, and I'll wrap that into the ALT here in a minute. There's nothing pathological about that, there's nothing concerning about that. What freaks people out is that when people develop kidney issues and the kidneys lose function, then we will naturally tend to see elevated creatinine levels as a consequence of that.

Usually, we see elevated ALT in early stages of non-alcoholic fatty liver disease and beginning to see problems within that story. But interestingly, there's a study that I linked to muscular exercise can because highly pathological liver function tests in healthy men. So, this was performed in men, I believe this will apply to women. I couldn't find a similar model here, but it basically was what the point of the article was, was making the case that people who train strenuously will see what appears to be pathological changes in liver enzyme activity and levels. It's not really pathological, it's just showing that there's more turnover than in a sedentary individual. The article isn't remotely suggesting that people should quit training, it's just to be mindful that if somebody is wanting to get a thorough baseline, to not do vigorous strength training, resistance training immediately before the test, within a couple of days before the test.

So, everything that you're describing here, high protein diet, taking creatine, highly physical active, all of those things by themselves could shift her... Maybe this is actually this one of the funny things, when you look at a normal population, the "normal population" is sedentary, metabolically disordered, etc, etc. If the normal population was a bunch of people that were-

Nicki: Training.

Robb: ... athletes, basically, we would have an entirely different set of standards around all this stuff, and I think that that's a lot of what we're looking at here. It is interesting that you raised the question about maybe there is some impaired kidney function post-COVID and that certainly could be a concern, so I think following up with a nephrologist to do some investigating there, but it's one of these interesting things. If that were the case, if there was some light tissue damage to the kidneys, personally, I think that the route to go with that is maybe reduce protein to some degree and you go on more of a ketogenic diet, but like elevating carbohydrate load in the presence of damaged kidneys, there's really good literature that suggests that that's not going to help things, and we have at least some clinical interventions in late stage kidney damage with ketogenic diets actually causing a recovery of kidney function, because of the healing effects of the

ketone bodies, the improvement in metabolism, the reduction in glycemic status and whatnot.

So, if there is something that has happened to her kidneys, to your point, I don't think that standard American low fat, high carb diet is really the way to address that. We know that the side effects that, I wouldn't say we know, we suspect that the side effects of both COVID and the vaccine appear to relate to broad ranging systemic inflammation and also some loss of mitochondrial function, and a ketogenic diet is fantastic for addressing that. Again, that ketogenic diet could be a modified Atkins plus MCT, it could be more of a legitimate like 20 to 30 grams a day ketogenic diet, and then that may not need to be used indefinitely. It might be a system reset to be able to quell the inflammation and get things to a more normal place.

Nicki: Do you think that it would... How many days of... I'm just wondering about her blood work that she got, she has this higher than normal creatinine and ALT levels. Maybe she did a hard workout the day before she got this blood work. Could there be a case for taking, I don't know how many, a couple days off or a week off of training and then retesting?

Robb: I think three days of no creatine, maybe just cardio, not high intensity interval training, but just baseline cardio, and then get that retested and see what it does.

Nicki: Yeah, I just be curious how much of her results could be based on the fact that she maybe had some really intense training sessions right before that.

Robb: All of the results could be with that. Yeah.

Nicki: Okay.

Robb: Yeah.

Nicki: Okay. Awesome, good question Don. I did remember what I forgot at the beginning when we were talking about the freedom to transact. So, I guess it was yesterday, you pinged me Instagram, Mike Glover who runs Fieldcraft Survival posted a thing showing that Stripe is basically de-platforming his business because their reasoning was that his business violates their terms of service because they don't serve businesses that sell ammunition, firearms, but his business doesn't sell those things.

Robb: No, it doesn't. But, Mike's a controversial person in a lot of ways. He has the Fieldcraft Survival, he put together a community called AmCon, American Contingency, which is basically teaching people preparedness in case crazy shit happens, whether it's civil unrest, whether it is a flood, a hurricane, different things. I will say within that AmCon community, there are some really good well-intentioned people in there, they also had some really not great people, like some legitimate white supremacist type entities pop up on there. I would also say that the bulk of that community was very not embracing of that type of mentality. But, he and the stuff he represents is controversial because just basic resilience is now a questionable thing. I don't know if people realize this, but post

9/11 and Patriot Act, having more than three or five days of food on hand is now considered, they could be like, "Oh, this person's a domestic terrorist because they're a prepper," and whatnot. This is some of the-

Nicki: So, basically any hunter that goes and gets an elk or anybody that lives in the sticks and needs to stock up at Costco once a month or whatever they do, like you're basically on the list.

Robb: Yeah, there's a lot of... If you aren't... I'm just going to throw this out there and it's going to be kind of hyperbolic, but it's like if you're not like lamb waiting for slaughter, if you have any capacity to defend yourself, to weather a financial or environmental catastrophe, if you have some resilience, if you wouldn't immediately be at the behest of the government to save you, you're viewed within certain circles as being dangerous, and there are elements of people in that that fit all those boxes, that are bad people, but there's bad people everywhere doing all kinds of shit. But, this is another one of these examples. Mike Glover does teach firearms handling, firearms training, tactics and self-defense, the situational awareness and whatnot. That now is also the slippery slope, has expanded to not just the sales of these items, and I know guns are just... God, let's talk about abortion, if we just want a more controversial topic.

Nicki: Contentious topic.

Robb: Contentious topic. But, it is gone from a outfits that sell guns and ammo and whatnot online to... And we've known for a long time, I have known that just within the regenerative ag space, people who sell meat are shadowbanned and have difficulty promoting their products and whatnot. So, there are certain verticals that people find repugnant or morally reprehensible or whatever.

Nicki: Well, that's what I was going to say. Maybe firearms are obviously a super controversial topic for many people, but it's not a stretch that this gets applied to other industries, other products. I just pulled up the notice that he received from Stripe, which he posted to his Instagram account, and basically said that, "Your business is in violation of the Stripe services agreement. We're unable to accept payments for weapons, ammunitions, and related products as mentioned on our," and then it's a hyperlink, "restricted businesses list".

So, what other businesses end up on the restricted businesses list over time. Clearly if... We've talked about this before, but if the whole agenda is to move people away from meat because cow farts, then that could find itself on the restricted businesses list. So, then you have no business, you have no way, his whole business is being platformed from Stripe. He's given one week, so it happens on March 8th. He got this notice on the first. So, one week to figure out how he can transact, how he can do business.

Again, even if you hate firearms, if you hate everything that his business stands for, and I think punk6529 made this case, "It's not that hard to imagine." You have to be able to do the thought exercise. "What if a person in power makes it such that the thing that I'm really into," which could be, who knows? Whatever the thing you're into, "that

becomes the thing that's on the list." Because it's not just against one side, right? Once this power is widely used, and use is accepted, the next person that comes into power that can use that, it can be wielded against almost anything at a whim.

Robb: This is one of the things that has left me scratching in my head. We clearly are in this centrist libertarian type thing, we'll vote differently depending on the topic at hand, we're not totally conservative, we're not totally liberal, we have a variety of positions, and I suspect the listenership that we have is similar in many regards to that. There might be some people that are more... Would pigeonhole themselves a little bit more, one way or the other. But, it's been so surprising to me that folks are so certain of their worldview and so comfortable forcing that worldview on everybody else, that there's not even a thought of what if there was a regime change that was 180 degrees opposed to where I am today, that used these new powers to not just undo everything that I've been doing, but to force me completely in the other direction?

Like you made the case the other day. There's nobody out there saying, "Everybody must buy meat. Everybody must feed their kids meat. Everybody must own a gun. There isn't that other side out here pushing that." All that we generally are advocating for is the choice to kind of do what you want, and there is absolutely a reality like a free society has some inherent dangers to it, but there's a really big danger with the... People die, bad things happen, but God, when you look at history, the really bad things happen when you get, whether it's a left-leaning totalitarian, a right-leaning fascist, or I know both those usually go the opposite direction. But, when one entity gets total control and fundamental freedoms have been eroded and the ability to transact, usually it's a cross section of people are verboten, they're the dirty ones, and you no longer interact with them, and then before long it's train, cars and all the rest of it.

Going forward, that probably won't be the way that something like this could play out. You don't need to stick people in train cars when you can stick them in home arrest and feed them a barely subsistence level of calories to keep them alive and make them feel grateful for not just starving them outright. I know this shit sounds crazy, but four years ago, if we were to project forward and suggest some of the things that have happened, you would've been called a crazy person, and not only did it happen, we had a decent segment of the population embrace it wholesale, advocate for it, beg for it, "Save me and now save me harder."

Nicki: Yes, COVID peeled back the veil on a lot of-

Robb: It did.

Nicki: ... human behavior, and how easily the wisdom of the crowd or the lack of wisdom of the crowd can sweep people along.

Robb: Eric Voorhis alluded in that really interesting Twitter thread, and I know this will annoy some people, but he just made the case that wokeism created a scenario in which statism can be rapidly, perfectly, precisely ramped up, and maybe they'll-

Nicki: Was that Balaji?

Robb: No, I thought it was Eric Voorhis that did that one. I'm pretty sure.

Nicki: Okay, we'll dig it up.

Robb: It could be wrong, but-

Nicki: I'll dig it up and then make sure I put it in the show notes.

Robb: Okay.

Nicki: It's one of the two.

Robb: God damn, that's dangerous. You may feel like, "Your team" winning today is okay. But, I guess that's really weird for me is because I don't see myself squarely in either one of these political extremes, either side of this shit show gaining total power is terrifying to me. This is one of the things that I struggle with too is I've got my thoughts, I've got my beliefs, I think we have some models around being able to... Predictive models, it's like both looking backwards but also looking at the way that things are currently and then projecting forward, and those models have been serving us pretty well, and the movement towards more centralized control is bad news, full stop, a hundred percent. It just there's no two ways around that.

So, the Fieldcraft Survival popping up was just timely because we will be keeping our eyes open for examples around this, and I'm not saying you necessarily go out and rally around Mike Glover specifically, if you want to, that that's just fine. But, this stuff is happening, and what was at one point we would've never thought possible, is becoming the norm and easily accepted. When folks are desensitized to really egregious losses of freedom and access, I hope that you recognize that as something to be concerned.

Nicki: Yes, that's a wrap for this episode. Thank you guys for listening. If you haven't listened to our episode from last week, it's episode 143, the Freedom to Transact. Please, please listen to it. Please share it. I think it's one of the most important episodes we've done recently for sure. Also, please check out our show sponsor for all of your electrolyte needs. You can grab your LMNT electrolytes at [drinklmnt.com/robb](https://drinklmnt.com/robb). That's drink [lmnt.com/](https://lmnt.com/) R-O-B-B, and keep sending in your feedback, it's-

Robb: Key questions.

Nicki: And questions.

Robb: Yeah.

Nicki: It's nice to see what we got right, what we maybe could do a better job at explaining, or where people are stuck or having some trouble. So, thank you all, have a wonderful weekend, can't believe it's already March. We'll see you next week.

Robb:           Bye everybody.