

Nicki: Welcome to The Healthy Rebellion Radio, this is an episode of Salty Talk, a deep dive into popular and relevant health and performance news pieces mixed with the occasional Salty conversation with movers and shakers in the world of research, performance, health and longevity. Healthy Rebellion Radio Salty Talk episodes are brought to you by Drink LMNT, the only electrolyte drink mix that's salty enough to make a difference in how you look, feel, and perform.

Nicki: We co-founded this company to fill a void in the hydration space. We needed an electrolyte drink that actually met the sodium needs of active people, low carb, keto and carnivore adherence without any of the sugar, colors and fillers found in popular commercial products. Health Rebels, this is Salty Talk. And now the thing our attorney advises 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 prudential to functional medicine practitioner before embarking on any health to dietary or fitness change. And given that this is Salty Talk, you should expect the occasional expedited. It's a Salty Talk morning.

Robb: It is a Salty Talk morning. How are you doing, wife?

Nicki: I'm good.

Robb: You're looking dashing in your red rebel quarantine T-shirt.

Nicki: I love the shirt, it's super soft. We had somebody actually mention in the Healthy Rebellion, it's one of the girls that earned one of these shirts during our last reset, said that she was wearing it and someone asked her if she was rebelling against mask wearing.

Robb: Fucking people these days, man.

Nicki: Because the design on the shirt there's a mask and inside the mask is we have the words, "Rebel quarantine, spring 2020 reset." So I can see where somebody might have ... Big words rebel across the front inside of a mask might be like, "Don't wear masks."

Robb: Still, it's just like everybody is such a fucking busy body at this point and sound like-

Nicki: This is true. You can't do anything without-

Robb: ... "Are you rebelling against that?"

Nicki: ... You can't do anything without getting-

Robb: Triggered.

Nicki: ... Yeah. All kinds of all kinds of stuff.

Robb: So-

Nicki: Well, you interviewed Dr. Kirk-

Robb: ... I interviewed Dr. Kirk Parsley-

Nicki: ... Parsley.

Robb: ... The impetus for this was an interesting paper that emerged, I don't know, maybe a month ago and I pinged doc, and both doc and I being the spazzes that we are took a little while to pin this down. But it was an interesting paper where it linked the causative factor of death due to sleep deprivation. Now, this was in mice, but to a gut disturbance. And they were actually able to reverse this process and prevent death by a pretty aggressive administration of any oxidants directly to the gut of these flies.

Robb: So it's interesting, but this is something that Kirk has talked about since virtually the first time that I met him doing some Naval special warfare gigs. Like, if you look in the Guinness Book of World Record, you can jump a rocket motorcycle across the Grand Canyon, you can juggle flaming chainsaws, but they will not entertain an extended period of unbroken sleep deprivation because the last three times it's happened every single one of these people passed the 10 day mark, eight day mark and they all die.

Robb: And they don't really know why they die, they typically go to sleep and just don't wake up then, and so this was just an interesting paper. We also unpacked some of the pharmacology and the efficacy around the drug ... Oh man, I'm totally blanking on the name of it, the anti-narcolepsy drug, Provigil. Sorry. Provigil.

Nicki: Maybe you need one of those.

Robb: Yeah, I need like five of them, clearly. Holy smokes, that was a total brain fade. But it's interesting, like Provigil has some really ... It gets touted particularly within the Dave Asprey circles that it's like some sort of a nootropic and it's going to enlighten you and everything. Maybe for some people it does, I don't want to diminish that if some people do get some efficacy.

Robb: For me, it's like particularly when the girls were younger and like our sleep deprivation was more chopped up or when I travel, it's kind of a get out of jail free card on the horrible impact of like a missed night of sleep or really poor-

Nicki: A really shortened night of sleep.

Robb: ... shortened night of sleep. And the main thing that I noticed is that I have few, lesser GI related symptoms. Like if I have a really bad night's sleep, like I just feel like I've got a gut ache all day. I don't really want to eat, and it's just bad, and the Provigil really seems to mitigate that. And Kirk was talking about part of the reason why Provigil also goes by the name Modafinil, which was the one that I was trying to fish out of my gray matter.

Robb: It's a little bit like aspirin or Glucophage in that it's super broad acting. Part of the reason why it's cool is it does a lot of different things and it does them synergistically. And when Kirk and I started digging around, it was interesting that the Modafinil is a pretty potent antioxidant too. So we were speculating about all that stuff.

Robb: Well, you have to get about an hour into the podcast to get to any of that shit, because when we first got in, Kirk's been doing a really remarkably good job of trying to stay on top of the COVID-19 epidemic and just kind of-

Nicki: Asking a lot of questions.

Robb: ... asking a lot of questions. He didn't throw a ton of like, "This is my emphatic answer." Everything from like masks, do they work or don't they, and how would you use them? And what is the real infection rate, fatality rate, what are the co morbidities and mortalities? And we've talked about a fair number of these things, but Kirk really took it on with a passion, a borderline lunatic passion, but he has done a great job and it was cool because he really has stayed up on so much of the kind of nitty-gritty details and so we unpack a lot of that stuff.

Robb: And again, if you folks have been staying on top of all this, it may not be a ton of new information, but it's very concise, it's all consolidated and Kirk does a really good job communicating that. And then we do wrap up talking about this sleep study admittedly in flies, but I think it has application for humans, for sure. And perhaps segwaying into our next little bit here, a lot of what Kirk and I did talk about with regards to the COVID-19 pandemic and our varying responses, there's a lot of unintended consequences and knock-on effects.

Nicki: A lot of costs, like we're ... And right now in several hospitals in Texas, Houston being one of them, I think the ICU capacity is now, they're at capacity, and so we're seeing more cases, obviously there's more testing, but clearly more people are being hospitalized. I think it's important to look ... I feel like we're moving towards this thing of like safety at all costs, and some of the other costs are not-

Robb: Are non-trivial.

Nicki: ... readily visible, right now they're not readily visible, but they're non-trivial and they're going to come back and bite us in the ass in a big, big way I fear.

Robb: And again, not throwing this out there as like we shouldn't do anything about COVID, but it's just for the love of God this extends to like all of our discussions around climate change and all this stuff, these kind of simplistic solutions get floated all the time and there's no discussion about what are the unintended consequences, or just what are the potential consequences.

Robb: Shutting down the global economy to, "Save the planet," billions of people will die, they will have no economic infrastructure. People will go out and start burning down the trees for firewood. This happened in Greece in the 2008 financial crisis. Like, a bunch of their countryside got savaged because people didn't have the money to buy natural gas and other heating elements. And although it's not super cold there, it gets cold enough that it inspired people to go cut down their trees. And so this is-

Nicki: Mental health issues are skyrocketing, like loneliness, depression, there's-

Robb: ... There's just a lot there-

Nicki: ... a lot going on.

Robb: ... and I just don't think we do enough. Like, everybody is so polarized, everybody gets so fucking cranky so quickly, and it is not the case to say, "Can we figure out a way to have this restaurant function so that the proprietors don't go out of business and everybody who works for them doesn't become unemployed?" with the only response being, "Well, you just want grandma to die."

Robb: And particularly in the light of ... We went from not being able to have meetings of more than 10 people to meetings of a hundred people so long as you were protesting. Like, all of that within a 24-hour period got rubber stamped, boom, there you go, which is ridiculous. But this is the stuff that we need to have some conversations with and unpack, and Nicki has a pretty powerful piece that-

Nicki: Yeah, I follow this woman on Instagram @sufeychen, and she is a mother who her toddler, Tahvy is, I don't know, she looks to be three or four, and she's just done a ... She's one of these people that has a beautiful way with words, and she's had several posts over the last few months about just things that she's witnessed with her daughter during this time of lockdown, particularly with other children on playgrounds and whatnot. So she had a post a few days ago and I thought I'd read it just because she's ... Again, I feel like her writing is beautiful and it just really tells a very powerful story.

Nicki: So again, this is from @sufeychen, "We arrive at the water after picking mulberries, Tahvy holding them tight in her yellow panda pail. A seven year old boy and his four year old sister stand not far along the shore, the little girl perks up upon seeing us arrive and starts to walk over to us. 'Six feet,' barks her

brother. The little girl ignores him continuing to walk over to us. He trails her. She waves at my baby and asks, 'Do you want to be my friend?'

Nicki: My baby takes a mulberry out in her hand and offers it to her. The girl makes a motion to receive the berry and her brother slaps her hand away. 'Leave me alone,' the little girl shouts angry at her brother, he doesn't. He continues to track her, telling her off and monitoring her distance. She tries once more to come over to us, he stands in front and blocks her. I can see the touch starved in her eyes, she is desperate for connection, it is obvious. I want to wrap her in a forever hug and give her the presence she is asking for, but in between us stands horrifying experience of a tiny social distancing Nazi.

Nicki: The father is standing in the distance on his phone, pacing back and forth. I guess his work is done for now, big brother is already here policing. There's a hardness to the little boy's eyes, a premature callousness. He has already been taught that only in his virtuousness is he worthy of receiving love. I flashed forward for a moment and see embarking harsh orders on a microphone, those cold dead eyes, a soul already sold. What will he prioritize, men to the left, women to the right, children left standing alone? What does this boy remind you of, what events beyond our time?

Nicki: This is not the main dish folks, this is just the beginning, this is just the appetizer for what is to be coming. We are not the targets of the feast of the century. The prey is clear as sight can be, hold on tight to your babies. These are the children that are and will be conditioned from the very beginning, 'Safety' is the priority, a sanitized world, a sterilized humanity. 'It's for our wellbeing, everyone.' The fear, the caution, the separation, the faces unseen, hidden away, the normalization of this, the stripping away of what it truly means to be human.

Nicki: How easy it is to get used to it all, a little less touch, a little less hug, a little less space, a little less song, a little less smile, a little less kiss, a little less thought, a little less breath, a little less here, a little less there. It's not so bad, not so bad until you don't notice it's gone at all. I can't walk into society without bumping into this, this permeating feeling of dis-ease. All the masks that are littered everywhere on the streets, truly a disgrace to humanity.

Nicki: The dirty looks, the pulling away, the heightened confusion in the air, and then this. He's only a seven year old boy, how deep is he in already? I look him warmly in the eyes, I say, 'Don't worry, we'll keep our distance. Would you like to throw rocks from six feet apart?' He hesitates for a moment. I pick one up, 'Look, this is a good one.' I place it on the ground for him and then I step away. He looks over at me, he picks it up and throws it, he grins.

Nicki: I feel a surge in my heart, he's still a kid, he can make it. We throw rocks for a while standing far enough apart, his little sister and us and him. We chat and they tell me about their life, they speak candidly and honestly. A flock of geese come to serenade us and together we feed them mulberries. At the end, the

little girl gives me a big hug and says, "I wish you were my mom." The little boy doesn't stop her this time. I wave to him as they leave with their father, he smiles and waves back to me. A glimmer of light resurfaces in my heart, I still have hope for humanity." It's pretty heavy.

Robb: ... Yeah.

Nicki: But anyway, she's a beautiful writer, and so if you feel so inclined you can follow her on Instagram @sufeychen, S-U-F-E-Y-C-H-E-N.

Robb: I don't have a lot to add, that one cripples me just about every time I hear it.

Nicki: Yeah, all right. Well, let's jump into your interview with Dr. Parsley.

Robb: Cool. Dr. Kirk Parsley, how are you? And I do promise to Photoshop out your love handles at the tail end of this.

Dr. Parsley: I appreciate it, and my double chin, like it start ... Like no, it's coming out a little, I'm getting older.

Robb: I don't know if it's a double chin, you just have such a manly chin that it's like enough chin for two men.

Dr. Parsley: Oh, I'm using that one, I just have enough jawline for two men. Yeah, man, great to catch up with you again on a semi-public environment, I guess, and paleo crapped out on us, and it was like ... I mean, even not their fault, you know what I mean? But the COVID crapped out everything.

Robb: Yeah. So we got together once kind of talking about the COVID stuff and we'll probably button all of this stuff up maybe unpacking a little bit. You've been super active kind of digging into what I can only say has been like a high-speed mugging at this point, is kind of like my best analogy, it was like, "Where's my wallet? Where's my keys? My pants are around my ankles and there's a carrot up my ass, like I don't know what happened here."

Dr. Parsley: Yeah, it's a fricking drive-by with IEDs riddling your exit, man. I mean, it's been such a shit show that ... I don't know if you're BG, you're not now. But I mean, yeah, it's crazy. I think I did 20 some odd, I didn't quite do 30, I did 20 some odd videos and I just tapped out last week. I don't think it's been posted yet, but I posted my last one and just said, "Hey, this is a final one," because there's no more science in the debate, right, it's political now.

Dr. Parsley: And it's like, I'm not a politician, I'm not going to try to weigh in on policy and political moves and all that stuff, that's not my area of expertise. I already get enough criticism for commenting on COVID without being a virologist or an epidemiologist, how dare I as a doctor think that I can review scientific literature

and stats and come up with an intelligent decision on it. Like, what type of megalomaniac I am? I don't know. Maybe we can't be saved.

Robb: Well, Hey, I'm just a dude with a bachelor's degree from a state school known only for being Playboy's Top Party School in the nation in 1987.

Dr. Parsley: What's my medical school known for?

Robb: Being a medical school at least. I mean-

Dr. Parsley: Come on.

Robb: ... there's something there. I don't know, maybe we do dig into the COVID a little bit upfront. Like I had shot Doc Parsley a couple of studies, one of them looking at kind of oxidative stress. And there was an interesting discussion in the Healthy Rebellion looking at some sleep deprivation issues and oxidative stress, and then I looked at Modafinil, which historically was used as a narcolepsy pharmaceutical and has been used kind of in the biohacking circle although I've never really noticed like a significant cognitive bump from it, but I do notice that if I have a really poor night's sleep, it's kind of a get out of jail free card.

Robb: I can't use it day after day, but like the one day that I use it, I don't have like, interestingly, the gut issues and I'm just not totally crippled. And then another study came across my desk, death due to sleep deprivation linked causally to the gut and is preventable in flies, and so I shot this to Kirk and we were going to unpack that, but let's talk a little bit more about COVID.

Robb: Early in this thing, I felt like, "Okay, we need to pump the brakes a little bit, we don't know exactly what's going on," although it's interesting we perhaps did know what's going on and all of those snafus with testing and all the rest of that were beyond even what incompetence could dictate, like it was actively undermined. Because if we actually knew what the testing told us, then we wouldn't have the option to default to the most conservative, scary, circumstances.

Robb: And so early in this thing, I tried to focus on what do we understand with regards to what the situation is and what can we do about it. And really own the what can we do about it, be as metabolically healthy as you can, sleep well, get some sun on your skin, and then that's ... I actually ended up stepping off the bus pretty early. I know that you did a lot of kind of statistical unpacking on this stuff, do you want to dig into that a little bit?

Dr. Parsley: Yeah, sure. I mean, my intention ... I mean, you know me well enough now, like I'm pretty lousy fairly. I'll let people hang themselves and shoot themselves and like whatever, like do your thing. And I'm not saying I'm like, I'm just saying that it takes a lot to increase my cortisol level, man, and it just ...

Dr. Parsley: Kind of before all the hubbub about it, I was chatting with a buddy of mine, probably, jeez, probably once a day for I'd say, this is like February, when it's just kind of looking like this is coming down the pipe, and we're trying to get what limited data we can get from China and then digging into the CDC's plans and the CDC's data on influenza-like illness from years before, and then looking at the pandemic plans.

Dr. Parsley: I think a lot of people are under the impression that we're like winning those pandemic. We kind of are in the fact that, in the sense that we're not following the pandemic guides, right? But we do produce pandemic guides, the CDC does. They get updated fairly regularly, so probably one to three years kind of depending on what's going on, they get updated if there's some significant thing. And things like social distancing are in there, things like wearing a mask are in there, and sanitizers and whether you close schools and ...

Dr. Parsley: All of this stuff has been around for a really long time, we just haven't heard about it because nobody's sphincter tone has ever been high enough to act on it. And if you look at the pandemic guides, they have a tiered system, right? So it's like that silly ... It's not DEFCON or whatever we call the ... Like the Allegiance of America-

Robb: The nuclear status.

Dr. Parsley: ... it's like there's stage one, three, five, it's like, what the hell does any of that mean? Like, I don't know what to do. Like, no one knows what to do. Like we need to get a flyer with this thing, it's just all of a sudden they're throwing things out.

Dr. Parsley: But if you look through the pandemic guide, it's like, "All right. Well, if we think over 2 million people are going to die, that's stage five or phase five or whatever. And if it's going to be like one to 2 million, that's a four. And then if it's ... " And it breaks all the way down to like under a hundred thousand is the lowest level, right, or it might even be under 150,000 or something.

Dr. Parsley: And if you look through those guides it's like everything that you would do at level five when 2 million people were going to die, we're doing more than that and we've been doing more than that since this thing started. Like we initiated with doing more than that, and then they're kind of trying to add on top of that.

Dr. Parsley: It was really clear in the pandemic guides that it just didn't really match what they were saying. Like there's nothing anywhere on the CDC that I can find at least, and I've spent hundreds of hours probably in the last two months reading that site, well at least tens hours, maybe 30 or 40 hours I've read that site, nothing about lockdowns, like that's new, like that is invented on the spot. Just completely locking up the community, that's never happened before. And so-

Robb: Because oddly enough, that is actually house arrest.

Dr. Parsley: ... Yes, it is, and I've made that case. I'm like-

Robb: You made that case, yeah.

Dr. Parsley: ... I'm like, "Yes, this my friends, this is not quarantine. You quarantine the ill so that the ill don't make the healthy ill. When you're quarantining the healthy, that's house arrest to me." And so I was against it conceptually, but I'm also not arrogant enough to think that I know better than everybody else. And so my big argument was the media was portraying a very specific narrative, and it was ubiquitous.

Dr. Parsley: I mean, it was like every station was saying the same thing, you're hearing all the same really fear-mongering, things like death toll skyrockets. Well, it went from 55 to 85, it's like, "Okay, that's big, it's still really small in 330 million people." And that to me just feels like bullying. And once I feel like people are getting bullied, I get really dug in and emotional and that's the only reason I got into, so I said ...

Dr. Parsley: And I was originally using Johns Hopkins site because I ironically was actually familiar with Worldometers, I find it a fascinating site. I'm only learning about it and I think in medical school you could pop it up and watch the death toll or the birth toll thing, it's like so cool, like total up to date, geeky thing, but whatever, I thought that was cool.

Dr. Parsley: And so I started digging into that data and I'm like, this ... Well, the first thing I looked up was that cruise, right? The Grand Princess or something, that first one where they really quarantined an entire cruise ship for weeks, I think, four weeks or something. And they were like 3,500 people on this place, 3,500 people on the ship, and it's a ship. I mean-

Robb: Re-circulated air, tight confines, like-

Dr. Parsley: ... Yeah, I mean you can't get away from each other. Like everybody touches everything, same dining hall, same dishes, same like, the crew, like you can't get away from this. And over the course of a month, only 700 people got it out of this 3,500, I'm like ... And they weren't wearing masks and they weren't social distancing and they're like ... So how is that possible? And of course that's an older population and-

Robb: ... So they should be more prone to problems.

Dr. Parsley: ... They should be more prone to and they should be having more problems, but they're infectious ... I guess we didn't know what their IFR was, but we know that CFR was, we know what their case fatality rate was, and it's still really low, it's like 1% for an elderly population, and people go, "Oh, 1%, it's like 10 times the flu or five times the flu," it's like not for elderly, right? For elderly people, it's a lot higher.

Dr. Parsley: I mean, an elderly person is more likely to die, stepping off the curb than a younger person, like everything increases. Yeah, I mean, I just kind of went day by day and I would read the headlines and then I'd pour water on my head to keep the steam coming out of my ears, and I'd try to come up with something concise and be like, "All right, here's the data." And I'd do the screenshot and be like, "This is the data of how many people we actually know have it. Explain the difference between infection fatality rate and case fatality rate," right? Because everybody was confusing those.

Dr. Parsley: I was getting all sorts of hate when I was saying that the death rate for anyone under 30 rounds to zero, and I was just ... I mean, man, I got just bombarded with that. I had actually since deleted all social media from my phone and I do not go on social media at all, it's just too nasty for my taste, man. I mean, and I can be confrontational and I can be a dick, but it's not what I like to do so I'm just ... Yeah.

Dr. Parsley: And like I was saying, people questioning my bona fides because, "Well, you're not a neurologist. You're not an epidemiologist," it's like, "Yeah, but there are Nobel Laureate epidemiologists that agree with me, but they're just not on CNN." And so it's not like I'm saying hamburgers cause this thing and all we need to do is eat more pickles. Like, if I was doing something crazy, I get it, but like I'm agreeing with 30 to 40% of the scientific community who are super educated in that field. And so I was-

Robb: The small group of people that are not on the Bill Gates payroll or something.

Dr. Parsley: ... Right.

Robb: Exactly.

Dr. Parsley: Yeah. And so I was really going in there just to settle people down, I'd say, every day it's like, "All this is, is narrative help," right? And you can call it spin doctoring, whatever you want, I mean I just think obviously conceptually we're all taking in information, but you and I can sit in the same place and take in the same sensory and make total different meaning out of it, and it's all narrative.

Dr. Parsley: And so when somebody feeds you the narrative, which I think is kind of the big problem, not just around COVID, but on mass about the way we receive information in our country at this point is that we get the narrative, we don't get the facts and then a clearly separated out opinion, we get the narrative presented as the facts with all the emotional language, inflammatory language, and it's all built in, it's all baked into the cake.

Dr. Parsley: So yeah, it just upset me, I just felt like they're taking advantage of the naivety of people who just aren't educated in whatever. They took statistics in college but they're 50 now, it's like they don't remember any of that stuff, they're not scientist anymore or whatever, and so I would just like, "Here's the data, man."

And the data has actually gotten better over time, but it was still at that time when people were treating this as though it was the bubonic plague, you could look at Worldometers and it was like 95% of cases were mild, right?

Dr. Parsley: This is when we had really small numbers, when we had like a 100,000 cases worldwide, it's like 95% were mild, meaning 95% of the people don't need any medical team, they don't need any medical attention. And then there were serious or critical, that was 5%. And originally about 20% of that 5% or overall 1% was dying, but you can ... Figures lie and I always figure you can manipulate data and say that in a different way that's sort of scary, but now that's even gone down to where it's like 98%.

Dr. Parsley: If you look at it currently it's 98% are mild to where ... And keep in mind that there's an observational bias, right? Because we're testing people by and large who are coming in to be tested, like either they're at higher risk or they have fears that they have it for some reason. They know they have known exposure or something so that's different than the general population, and even with that it's 98%. Mild meaning 98% of people don't need anything, right?

Dr. Parsley: They don't need a Tic Tac or a throat lozenge, right, it's like, "Go home and treat yourself like you have the flu, do that." And a lot of people are asymptomatic, of course. And so I just kept going through that day by day and the media would spin up new things. And then should we be wearing masks or not wearing masks? I'm like, "All right, I don't know either." And I hope what came across in my series was I don't know. But nobody else knows either, so if somebody is throwing moral aspersions at you for being a horrible person for not wearing a mask, just ask them how they know that it matters, right? Because the CDC's pandemic guides don't recommend this at this point.

Dr. Parsley: And if you're asymptomatic and you're trying to block something with a bandana or a scarf, I mean it's like a chain link fence to block mosquitoes or BB guns or something like that. It's like the scale of that people don't understand, that a virus particle is orders of magnitudes smaller than a dust particle. And you can see dust particles in the right lighting when you walk in the room and the sun is coming through your window. It's orders of magnitude smaller than that, right?

Dr. Parsley: And those would fit through the holes in a cloth mask very easily. And so I just kind of, yeah, I just really try to settle people down and talk about like, "Here's the true problem." And then when you look at the data per country or per state it would say serious or critical cases, right? So these are like hospitalized people who are under, they're at least under concerned observation, but a lot of them are in the ICU, and then any one of course who's on the ventilator they fall into this category, well that number wasn't changing. I mean, it just wasn't.

Dr. Parsley: It was changing with like a hundred a day, I was like, "Oh, 100,000 new cases, but only 100 serious critical," so the math wasn't working out and I just kept

pointing it out. And if you look at it now, so this is ... I mean, I think back in, definitely by May, but I think like maybe late April, the serious cases in America was 13,000, well, today it's 16,000, and it's never gotten over 16,000. So it kind of like shot up really quick, got to like 10,000 pretty quickly and then it was just like a couple of hundred a day that were going up.

Dr. Parsley: And if you look at the people who were dying, and if you look at the age of the people who are dying, it's like the average age of people dying some of this is older than life expectancy in America. So like let's just be honest about this, it's not a nice thing to say, it's not flipping our glib to say. Like, I don't want my mother to die or I don't want anybody else's mother or grandparents to die or anything like that, I mean that's ... I'm not being callous about it, but it's like, "Hey, this is the subset of the population that's really vulnerable. And if this were anything else, we would have treated it that way," right? I mean, if this thing was killing all age groups equally it's a totally different conversation.

Robb: We would have gone bananas.

Dr. Parsley: Right? Or even if this just killing five-year-olds, like five to 10-year old, like that was a sweet spot, man. Five to 10-years old, this will be a totally different situation. It's like it's killing the people who are most likely to die from any cause so that's not really surprising, what that actually means is that it's not super deadly, right?

Dr. Parsley: Yes, if you're immunocompromised you're at higher risk, or if there's just like some ... Like you've got a huge viral load, you're a healthcare provider, you're not using PPE, you're working with 100 people a day who have it and you just keep taking it, and you get this huge viral load that's overloading your immune systems ability to respond to it.

Dr. Parsley: There's all sorts of nuances, there's always going to be outliers, but when you look at like who's really at risk, it didn't make any sense for the whole nation to be afraid of it, and that was really the point of all of it, and that's kind of where I left it because at some point, a couple of weeks ago, it just became this completely political thing.

Dr. Parsley: All science was completely out the window, it was like some cities if you leave your house without a mask you get arrested, other cities are like, "You don't even need sunscreen here, you get whatever you want," so it's like ... And there was no data to support either case. Something I pointed out with the mask is like the particle size that a mask can block is, again, it's ... Even the N95 mask can block a 300 nanometer particle, well, the coronavirus is 100 to 120 nanometers, so it's like it can't block that.

Dr. Parsley: Like it will block it because it has to go through security as pathways and it'll catch some, but it can't reliably block that. So what you're really blocking is the

speed of the air circulation from coughing and sneezing. Well, that means I'm symptomatic, and of course, yeah, if I'm symptomatic I should wear a mask.

Dr. Parsley: And again, I wasn't telling people you shouldn't obey your laws or whatever, I was just saying, "Here's the science behind it, so if you feel uncomfortable about wearing a mask or maybe even angered about wearing a mask, there's justification for feeling that way and nobody knows the answer."

Dr. Parsley: And to this day nobody knows. I mean, there's so little we know, but what we do know is that the death, like the overall infection fatality rate is really close to the flu. But it might be half of the flu, or it might be twice the flu, but-

Robb: I think either the CDC or the WHO just came out and said that current numbers suggest that this is like an average flu season.

Dr. Parsley: ... Yeah, the last time I went over to the data was last week and they-

Robb: Well, this was like this morning and the CDC had this thing that basically said this is on par with an average flu season.

Dr. Parsley: ... Right. And so what I looked at last week was worst case scenario was 0.37, which was two to four times a flu depending on the flu season. But what I broke out really early, one of the reasons that I went to the CDC, the CDC has a site and I encourage, every video I do, just I encourage people, "Hey, go look at this yourself." It's a super easy thing to use. If you're a little nerdy like us, it's actually even a little fun to use.

Dr. Parsley: And you can kind of adjust four different interfaces, and you could move the dates around and look at different seasons, and you can do all sorts of cool things, it's sort of interactive, you could just look for trends. And I kept going back to the H1N1, because we all know this, I believe we all know this, whether we resist it or not we all know this, that really the best prediction of the future is the past, right? I mean, it's just reality because we can imagine any kind of future.

Dr. Parsley: And if I'm just going to sit here and go, "Well, what could be going?" there's a lot of really bad stuff and I could spin off in either direction, but if I say, "What is this the most like? What is this ... Like, what does this look like that's happened historically?" The closest thing was H1N1. And H1N1 was 2008, 2009 was the initial season.

Dr. Parsley: And when you look at it, we had a normal flu season and then right at the tail end of that flu season, H1N1 spiked up and we essentially had a second flu season in the summer. But interestingly enough, the next flu season we didn't have any deaths above basal rate because everybody who was going to die from that flu season-

Robb: That cold.

Dr. Parsley: ... died summer before. And so it's like there are only so many susceptible people, and that's what I kept trying to put out it's like, if a virus killed everything it came in contact with the virus would go away immediately because it wouldn't be able to spread. Something like herpes doesn't kill anybody and everybody on the damn planet has antibodies ... 99.8% of people in the planet have antibodies to herpes because it doesn't kill anybody.

Dr. Parsley: So it's going to be somewhere in between there and it sort of has a decay rate. And then about, I would say two months into it maybe, or I'd say probably three months, so I'm talking about ... I started in February, so March, April, but definitely by mid-May, you could see this eight week decay rate that was existing in every country that had been affected by this.

Dr. Parsley: And so it spiked about six weeks, there's a two week plateau and about eight weeks it starts decaying, and it had absolutely nothing to do. There was no correlation with what anybody did because everybody is doing something different, right? Every country was testing different ways, there were ... Some were wearing masks, some were not wearing masks, Sweden was saying how they were going to do whatever they want to do.

Dr. Parsley: And some people were locking down once it was serious, some people were locking down before it got serious, some people were reducing crowd size, like preventing people from going outside, some people were saying, "No, you can go outside." There was huge disparity in how it was being treated, but the decay cycle was the same everywhere, and we followed that exact cycle. Like, we peaked at six weeks, it plateaued for two weeks and it's on its way back down.

Dr. Parsley: I think we're like three or four weeks now into the decay, and a month from now it's going to be some sort of basal rate. And then as I was talking about the H1N1, historically, you had sort of a double flu season within six months and then you had essentially no flu season the next flu season. So that was 2009-10, and then when you look at 2010-11 flu season, H1N1 was just built into to the bell curve. And the area under the curve didn't change, it was just like what people were dying from.

Dr. Parsley: There was a lot more people dying from H1N1 than there was regular influenza, and so it was still technically a bad H1N1 season, but the area under the curve was the same because the same number of people who were susceptible to a very similar illness manifested itself again, there was no shocker to it. And that's exactly what we're saying. And not because I had a really brilliant insight to it, it's just like, "Let's look at what's happened in the past and see if it looks like we're fitting into that," and it really looks like that's what's going to happen.

Robb: Now, a quick word from today's sponsor.

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Dr. Parsley: Now the one fear that I still have about it is that the Spanish flu is the worst thing kind of undocumented in history. You hear a lot of people saying, "Well, the Spanish flu was two years," and I was like, "No, it wasn't, it was 18 months, but it was three different-"

Robb: Strains.

Dr. Parsley: "... spectrums." There was three different strains, right? And so the first two strains just weren't, they weren't deadly, and then the third strain was deadly, but you were more likely to die from that third strain if you hadn't had the first one or two. And so my concern is that we're trying so hard to not spread this, that if a more virulent strain comes along this flu season, we're going to end up with actually a worse situation because we're that much further from herd immunity, right?

Dr. Parsley: Whether we have herd immunity technically or not, essentially the more people who have had it and have antibodies to it and are therefore resistant to it, if not immune to it, the more of those people we have the less it's going to spread which means the fewer people that are going to die from it. So if we keep every population down to 10% of people having antibodies to it, and then we have another more virulent strain in the winter or next spring, we could be doing ourselves a big disservice.

Dr. Parsley: And also, I think it's better to actually get the virus than to get a vaccine, right? Because we know that a vaccine is ... They're going to put non-harmful bits of

the virus in your bloodstream so that you develop antibodies to those bits, but they're putting the whole virus in your bloodstream, right, so you're not developing all the antibodies you would get if you actually had the virus.

Dr. Parsley: And they're using the spike protein I think is the primary focus on this. So what if it's the spike protein that mutates, right, then your vaccine is useless, right? And so maybe if you've actually got the virus, you'd get six different antibodies. And if you get the vaccine, you're going to get one antibody or two antibodies. And so that's my only kind of residual concern with it. I think, like I said, it's 100% political now, I think it's all but done. If you look at our deaths tolls now, they're somewhere between five to 800.

Dr. Parsley: For some reason, Tuesdays are always the highest numbers, it has something to do with reporting I'm guessing over the weekends, but we're close to like, really I'd say 600 kind of is our average. And we have to remember that it's like 7,500 people a day die, right? So it's like it's not the big playing anymore, it became significant, it's not really that significant anymore, but we're still changing the world around it and I hope that America's lack of attention span kicks in really quickly and we just start moving on with life. I mean, that's kind of my update on my whole COVID philosophy.

Robb: Oh, it's awesome. Early in this thing, I was kind of puckered about it because some of the early data coming out of China was suggesting that people with metabolic disease, comorbidities like type two diabetes, elevated blood pressure, just systemic inflammation, they didn't seem to be fairing that well, and the US population is not that healthy so I was kind of like, "Ah."

Robb: I could see this getting potentially bad, but then in the back of my head, I forget what the guy's name is, but he was both an epidemiologist and kind of a game theory wank, and he made this case and he had this really elegant kind of graphic describing this, that if something is more deadly then it tends to be less virulent, less transmissible, and if it's more transmissible, it's less virulent, and to the degree that there's overlap there, then they kind of end up canceling things out.

Robb: Because if it's like out of Stephen King's *The Stand* where it's like a 99.98% fatality rate, it actually typically ends up cratering because some degree of social distancing, even getting in your car and driving away, everybody in that area dies if it's regularly that bad and then there's nowhere for it left to go.

Dr. Parsley: Right, as I was saying earlier, like if it killed every animal it infected it's like it'd kill one animal, right? Especially if it does it super quickly. The concern with this was like, "Hey, you may be contagious for a month with this stuff and not even know it," so I think that was the most concerning data that-

Robb: And again, I'm not a virologist, not an epidemiologist, but just that I do remember this discussion around the game theory elements of there's ... I am

kind of geeked out on the different trade offs inherent in biology. If you are super fast twitch, you're probably not going to be a great marathoner, or if you're a good marathoner the likelihood of dunking is low, you know what I mean? Just these back and forths.

Robb: And what was really interesting about this is the way that the SARS-COV virus was being painted, was at the two kind of Venn diagrams of super contagious, really deadly were like smashed together. And in the back of my head, I was just like, "That doesn't make any sense. Like, it can't actually be that, and even if it is--"

Dr. Parsley: ... I mean it's just exceedingly unlikely, right?

Robb: ... Yeah.

Dr. Parsley: I mean, obviously it could be with like the odds of it hovering very close to zero.

Robb: Yeah, and then again, once you do get both high transmission and high fatality, then you wind up running out of people kind of quickly so some degree of social distancing ends up like curtailing that whole thing. And none of it ended up playing out that way, like it ended up fitting the classic deal where it had some degree of lethality, it probably has decent amount of virulence, although going back to the cruise ship data it's really interesting that people that were kept on a boat with recycled air, food brought in, like 20 ... What was it? 20, 25% total of the population on the boat ended up with it?

Dr. Parsley: It was 700 out of 3,700 people--

Robb: Okay, so a little higher. Yeah.

Dr. Parsley: ... whatever that is. Yeah.

Robb: Okay.

Dr. Parsley: Yeah, it's like 20%, right?

Robb: Yeah.

Dr. Parsley: Yeah, seven times five, 35, so yeah, it's right around there. Yeah, and that was the most ... And that data was available immediately, that data was available before the lockdown started.

Robb: It seems like people went through like heroic efforts to downplay the significance of that data.

Dr. Parsley: Yeah, it was just too small of a population. And then was it ... What was the area? Santa Clara?

Robb: Mm-hmm (affirmative).

Dr. Parsley: Where the couple of doctors are like, "We randomly tested a bunch of people in our area, and if you look at our population, like in ... " And then something else that people don't understand about testing is like, and this was one of the things that angered me about the way the media ...

Dr. Parsley: And I'm fair enough to say that the media is probably just incompetent and it wasn't intentional, but yeah, the way they portray this is like, "Oh my God, look at the skyrocketing rates of COVID infection in America," it's like you're starting with inadequate testing and then you're ramping up testing, and essentially with the amount of testing you're doing you have an infinite pool of people who are going to be positive because you're doing so few tests per population.

Dr. Parsley: I mean, at was very beginning, I think it was like 30 or 40% of the test they were doing were positive, which is a crazy positive rate, right, because that means you're missing a ton, right? But now it's settled out to where it's like the flu, it's 3-5% everywhere because we got testing up to a high in a go. I think we're testing half a million people a day.

Dr. Parsley: And another point that I made with this is we've now made it impossible to compare this to anything else, because we've never done this before. We've never tested 8 million people for the flu, right? We've gone so extreme with data collection, contact tracing, social distancing and mask wearing it's like at this point we don't know anything. Like, we can't compare it to anything we've ever known because we've never treated anything like this before.

Dr. Parsley: And so when we had this skyrocketing rate at the beginning, it's like, it was never exponential. So if you look ... Well, I mean, it was exponential in the sense that the growth was dependent upon the number of people infected. So in the strictest sense it was exponential, but the double rate of exponentiality that people were referring to didn't happen, like it never happened.

Dr. Parsley: It would look like it's doubling for two or three days and then it'd go down for a couple of days and it'd flip around back. And so I think what is funny is we were finding our rhythm in testing and our criteria for testing which was shifting, and then our criteria for calling something a COVID death, the definition of that was shifting back and forth.

Dr. Parsley: And so at this point, I think it's probably more murky than it was when we didn't know anything, but I think we know enough to now say, "All right, it's nowhere near as dangerous as we thought it was and we really should put some serious thought into how we're going to get back to normalcy as quickly as possible while still trying to figure out this riddle."

Dr. Parsley: And in fact, I think the more normal we start behaving, the more information we'll really have about this because then we have people acting normally, and

then if we collect normal data, our regular sort of influenza-like illness seasonal data, if we start collecting it in the usual fashion and people are behaving normally, then we can say, "Hey, yeah, this is actually worse," or, "This is actually quite similar or maybe it's even less," and then we'll really know something, but I think right now we have ... The biggest problem with the whole thing is that they treated America like it was a homogenous organization, it's like New York and Cheyenne, Wyoming are-

Robb: Totally different.

Dr. Parsley: ... going to have a totally different outcomes with us, there's no comparison though. And so it's the rate of distribution of everything and so like the logic of it, I think it's really hard to get the genie back in the ball at this point. I'm glad I'm not in charge, I don't have the answer, right? Again, I'm not saying we shouldn't do anything, I'm just saying I don't know what to do, I'm unsure what to do, and I think everybody is unsure what to do. But the one thing, the one message I continually try to put out is I can promise you the thing not to do is panic.

Dr. Parsley: Like, that's not the helpful thing, that's not going to lead to a better outcome, no matter what. No matter how bad it is, that's not going to lead to a better outcome. And then of course I tied it into the health stuff like we always talk about and said, "Hey, here's the really good news. The really good news is everything I'm going to advise you to do is exactly the same thing I've always advised you to do because you're just making yourself healthier."

Dr. Parsley: And really, if you look at any situation, this is a complex problem, right? And so in any complex problem, whether we're talking about the political writing stuff going on, or we're talking about COVID, or we're talking about poverty or we're talking ... Like anything, that's really complex, well there's not going to be a solution, that's by definition what it means that it's complex.

Dr. Parsley: So if there's not going to be a solution, the best thing that you can do is be the best you that you can be all right? And so that you're the best able to contribute when we do figure out what we need to do. And so make yourself healthy, man, get good sleep. Take care of your immune system and ... This is actually something I came up with during ...

Dr. Parsley: I mean, I've done so many damn podcasts during this too. I've never said this before, but it occurred to me in one podcast when I was talking is, fight or flight, right, maximum stress moments and maximum cortisol level, but also maximum catabolic state, right, that by definition you're using all your resources to get out of that situation. The exact opposite of fight or flight is deep sleep. Slow wave sleep cycles is when your cortisol, your stress hormones are at the lowest and coincidentally that's when you're the most anabolic.

Dr. Parsley: Anabolic by definition means your immune system is working because that's the restorative regenerative process is the immune system is the same thing that's fighting off parasites and bacteria and virus, it's the same thing that's repairing tissues where just a lot of the same signaling molecules and a lot of the same chemical messengers, a lot of the same processes and a lot of the same hormones involved. And so if you want to be the most anabolic you can be, you better be getting good sleep, right?

Robb: Right.

Dr. Parsley: And you're actually boosting your immune system. And now if you wake up, obviously you can go to sleep in a completely dark environment. You can put people in a cave, put them in completely dark, cool environment and give them no alarm clock, once they sort of sleep it out, they'll still wake up at the same time, they'll still wake up having the same amount of sleep. So how are they doing that? Light is not doing it for them, right? It's not traffic noise, what's doing it? Well, it's their cortisol level, right?

Dr. Parsley: They did all their anabolic repair and then the more and more they start heading towards REM, the REM's very cognitive and emotional and your cortisol level starts creeping up, and at some point you have enough cortisol to wake up, right? And now in order to go to sleep, you have to have cortisol lower than that, which happens at the far end of the day. So if you're running around stressed all day, if you're stressed out of your mind and it's hard to get your cortisol low enough to sleep, but also you're waking up with kind of the optimal level and there's kind of a optimal and natural level.

Dr. Parsley: So really if fight or flight is completely making your immune system useless and deep sleep is maximizing your immune system, you want to have the low stress hormones as you can possibly have through the day. And so that's pretty simple, right? Get great sleep, don't eat stuff that's aggregating, that's using ... Like, you use 30% of your immune system if you're eating something that's antigenic to your gut, right? It's like, why are you wasting all of these resources because you want to eat donuts or pizza? Like, that doesn't make any sense.

Dr. Parsley: Like if you want your immune system to be strong, keep it ... Right? And then do some, you got to do some sort of stress mitigation, and you've got to do some sort of activity. If you're an athlete or if you typically work out, it can be exercise, but if you're not you just need to be active. Go wash your own car, mow your own lawn, like sweep your driveway, like just be active, take the stairs. I mean, it's not rocket surgery.

Robb: You did great stuff. And to that point, like my original idea on this was digging into a little bit of this sleep stuff and circling back to that it's on a genetic engineering and biotechnology news, all the link in the show notes, but death due to sleep deprivation linked causally to the gut and is preventable in flies. I just thought that this was pretty interesting because in one of the earliest times

I met you, you were giving a lecture and you made this case that the Guinness Book of World Records will let you do any number of kind of crazy things; jump a rocket motorcycle over the Grand Canyon, juggle flaming chainsaws, but they won't allow you to do an extended period of sleep deprivation because-

Dr. Parsley: Yeah, they won't let you go for the record anymore. And-

Robb: ... Yeah, because everybody was dying.

Dr. Parsley: ... Well, I mean, specifically I think the two cases that really led to it, one was a sleep researcher and I think he just drew the short straw in the lab and so he was the one that they were going to study, and they had some goal for how long he was going to go and at some point he was just like, "I'm smoked, man. Like, there's no way I'm going to make this," because they weren't using stimulants or anything and they're just doing a bunch of monitoring and trying to figure out what's changing.

Dr. Parsley: Now to be fair, we still don't know what kills people. And so your article was super, the article you sent was super interesting for that mechanism there like, well, maybe that's it. So there was this case of the sleep researcher who just said like, "Hey, I'm smoked, I'm going to bed." And so he was going to do his first sleep recovery there in the lab and everybody else is going to go about their business and then he was going to get up and I don't know maybe work the next day or go home or whatever it was going to be, and then he never woke up, he was dead.

Dr. Parsley: I think I originally read about that case maybe in lights out, or it was right around that time when I was really just starting learning about sleep, and I've had a hard time finding that case again. But I know lots of other people have heard of it so I know it's out there, but it's like I can't lay the article out. But in the final analysis, they had no idea why I died.

Dr. Parsley: Like, there was nothing in the autopsy, it was like he didn't have a heart attack, he didn't have a stroke, like we can't point out why dad, but he's dead. That was kind of the first incident. And then there was a radio DJ who did this stunt kind of in the Northeast, kind of original colonies up there somewhere, and he had like this glass booth and he was going to stay up for however many days and 24 hours a day radio, a publicity stunt kind of gig, and he ended up having a psychotic break and-

Robb: On the air?

Dr. Parsley: ... Yeah, on the air, just like progressively got worn out. Of course it was like entertaining at first because we know how you get when you're sleep deprived, it's like, "uh I feel kind of stupid" and you say silly things, you become more impulsive. And it's clear why that is, like we know the physiology of why that happens. And then it just started getting weird and odd and strange and then

kind of concerning and then dangerous, and then he was gone, and he never returned to a sane state, like even with medication and inpatient treatment, he died in a inpatient facility.

Robb: Wow.

Dr. Parsley: And those two things happened I want to say within like 18 months of each other or something and that was like publicly too ugly like, "We can't do that anymore."

Robb: Just stick to the flaming chainsaws.

Dr. Parsley: Yeah, exactly.

Robb: This article was interesting in that they acknowledged that they didn't know exactly what systems are affected. And so they did kind of a slick deal of looking at a microarray which is the gene transcription factors of a host of different tissues. They looked at muscle, brain, body fat, testicles and then the gut, and what was interesting was, now granted this was in flies, but the gut was the place that they saw the most profound and immediate change, and it was in a loss of superoxide dismutase production.

Robb: So the free radical load in the gut, it got accelerated, there were some uncoupling proteins that increase the reactive oxygen species. But it's super anecdotal, again, flies versus humans, but one of the worst elements of sleep deprivation for me is gut issues.

Robb: Like immediately, my gut seems to get wonky, or I feel like I've got a case of food poisoning, there's pretty good literature suggesting that sleep deprivation, you have increased translocation of lipopolysaccharides in the circulation, and that's a proinflammatory agent, but what are your thoughts around that? I mean, I just found it fascinating and maybe it's a bunch of confirmation bias because I like poop and I like to sleep and I see a connection between them, but ...

Dr. Parsley: Yeah. Well, I mean, I'm constantly overwhelmed by, I'd say sort of the negative press around sleep deprivation. Just when you think it couldn't get any worse, yeah, it comes out, "Oh, no, this is actually a lot worse than we thought." And I remember when I ... Yeah, in fairness, I haven't really studied epigenetics in earnest, but I started putting some time into it a couple of years ago. And I thought one of the most ... And I know you you've heard so many of my damn lectures...

Robb: I can do a half decent Doc Parsley imitation at this point, so yeah.

Dr. Parsley: ... Yeah. You remember that Reno thing where we were doing two lectures a day and sitting in on each other's lectures and it was just like Groundhog Day,

and it just went on forever. And there's all those really compelling facts about decreased testosterone production and growth hormone production, like all of a sudden and in just a single night of either short sleep or sleep deprivation.

Dr. Parsley: But I remember kind of when they first started dabbling with the epigenetics, and I mean my naive opinion that epigenetics matter a lot more than genetics because what matters is what's being expressed, right? And so it was 765 or 767, it was over 750 epigenetic shifts from missing two hours of sleep, so you sleep six hours instead of eight, and every single one was negative, so every single one that they knew.

Dr. Parsley: So it's like, all right, well we know that these genes are associated with optimizing, minimizing let's say oxidative damage, and these are sort of the anabolic inflammatory ones and these are the catabolic inflammatory ones. And every single marker across that, and a lot of that comes from the gut, right? I mean, the gut brain drives a lot of the immune function.

Dr. Parsley: And I just thought that, that was a fascinatingly large number even knowing that, oh, you can lose 30% of your testosterone production. Okay, that seems like a big deal, but 765 epigenetic shifts in two hours. So what happens after 24 hours or 48 hours? Like, that just seemed insane because at that point ...

Dr. Parsley: Like, I have a friend who's a psychologist who said, "We're just a big bag of hormones and neurotransmitters, and if you shift that around it changes who we are," and I'm like, "Okay, that's a compelling argument," but you take that down a few levels and it's like when you shift your genetic expression that really changes who you are, that gene expression changes a lot of physiology, but it also changes a hell a lot of phenotypic expression, and you can literally look like a different person pretty quickly by changing genetic expression, and cancer is proof of that, right?

Dr. Parsley: With cancer, it's sort of out of control genetic expression. And so it really doesn't shock me anymore, but it's just way too complex for me to get to the bottom of it and say, "Well, I think, well it's most likely this pathway or that pathway." Another thing we're considering talking about, and this was Modafinil, like one of the interesting things about Modafinil is that it does everything.

Dr. Parsley: Like it affects so many neurotransmitters that nobody has any idea how it works, and it's just too complex, and I think that sleep is the same way. And when you only think about it from just a pure logical standpoint, you were born into this agreement, this contract, whether you wanted to be born into it or not, you're born into this agreement, that one third of your life needed to be spent recuperating for the other two thirds.

Dr. Parsley: And if you don't spend that third recovering, then obviously your performance decline so that you're not recovered the next day when you start doing

everything that you're going to have to do anyways. And that's really what we call aging, right? Because if you recovered a hundred percent every night, you would wake up exactly the same every day and there would be no aging.

Dr. Parsley: So whatever that delta is, that's how quickly you're aging. And so one of the main reasons that people are dying from COVID at 80 years old is because 80 year olds aren't very resilient, they aren't very anabolic and they don't have very good immune systems by definition because that means anabolic, right? Those two words could be interchangeable essentially.

Dr. Parsley: So if you can't repair broken bones, and you can't repair damaged skin and you can't repair all of the stuff that you can, well it's no surprise that you can't fight off infection, right? And that's essentially what it is, we're getting fatter, old, dumber and slower, but more than that we're just becoming more and more catabolic, less and less anabolic.

Dr. Parsley: And that's why you don't see a lot 6'4, 270 pound Jack 80 year olds, because you just keep losing muscle mass. And the more you deprive yourself from sleep, the more that's going to happen. And that happens through like every conceivable pathway.

Dr. Parsley: Like, of course all the system is completely made up of crap. My body doesn't know that it has a musculoskeletal system and a nervous system and a digestive system and a cardiovascular, it doesn't know that, like everything affects everything and nobody is smart enough to know how one thing affects everything else no matter how smart they are, even Peter Attia is not that smart. I mean, I don't know anybody who is that smart, like it's just too complex.

Robb: Awesome. Well, doc, I've chewed up an hour and 10 minutes of your afternoon so I'm going to-

Dr. Parsley: Holy shit, man. I feel like we just started talking.

Robb: ... Well, that's the way you and I get along, so I super appreciate it though. And when do we get to have you come down to New Braunfels for some ju-jitsu?

Dr. Parsley: I'll come train next week.

Robb: Okay, cool. Monday or Wednesdays noon.

Dr. Parsley: I want to say Monday and Wednesdays. Monday and Wednesday?

Robb: Yeah.

Dr. Parsley: I got something on Monday, but I think it's in the morning. What time is the training?

Robb: Noon.

Dr. Parsley: Yeah, I'd probably make it.

Robb: Okay.

Dr. Parsley: If I can't make it Monday, I'll definitely make it Wednesday, but-

Robb: Okay. Doc-

Dr. Parsley: ... yeah, man. I think we can-

Robb: ... let folks know where to track you down on the interwebs if they don't know already.

Dr. Parsley: ... Docparsley.com and see you're just seeing all of my social media, it says D-O-C and then partially like docparsleycom. All of my social media links are on there, I can't tell you what they are, I don't know my handles. And then of course our sleep remedy is on there, the announcements that we've got some teasers about our kids' formula coming out, I think that's going to be pretty exciting.

Robb: It has gone over favorably in the Wolf household, so yeah, we're excited.

Dr. Parsley: Yeah. I mean, I don't know if you remember but when we very first started this gig we tested out that berry formulation, and my kids were doing all the taste testing, and that was the one that they ... It was universal.

Robb: They damn loved it.

Dr. Parsley: 100%, like this one. And my daughter was, she was probably only, was probably 10, nine or 10 in those days, I think something like that and she goes, "You should call it berry bedtime," I was like, "All right, that's what we're going to do."

Robb: You know it's funny when I received the samples I looked at him, I'm like, "I've seen this before, it's just been six years or whatever," so yeah.

Dr. Parsley: So again, we changed production houses, but coincidentally one of the main reason we changed production houses was the production house sold and we no longer had the relationship to be able to get good terms and have a more hands on approach and so we shifted to a different production house. And just by sheer luck, the woman who had done the flavoring at our original production house had moved to this one and she's like, "I still got that berry formula."

Dr. Parsley: And man, I wish I would have gone with that over the lavender, the lavender just ... I think it's a good flavor, but it just, I think intuitively it doesn't sound like something people want to drink. So that was kind of a flop, but ergh,

Robb: You win some, you lose some. Well, doc, Hey, thanks for coming on, I super appreciate your time and can't wait to hang out in real life here.

Dr. Parsley: Yeah, man, I look forward to it and we'll do some jets and some house-hunting.

Robb: Awesome. Okay, well, talk to you soon.

Dr. Parsley: All right, cool, talk to you later.

Robb: Bye doc.

Nicki: Well, hubs, that was a ...

Robb: It was a spicy meatball.

Nicki: A spicy one. You and Kirk always-

Robb: Works eloquent.

Nicki: ... works eloquent.

Robb: Yeah.

Nicki: Yeah.

Robb: It's good. I think his take on kind of the COVID situation is valuable. And funny enough, buried in that this discussion of good sleep and the implications for poor sleep, it applies to this current situation we're in and it paints a rough picture for folks that are on the frontline and their sleep is inherently disturbed and they tend to have access to poor food and all the hypervigilant state and the stressors and all that type of stuff. But I think it can be really empowering to just understand that if we prioritize these things, that it can really make a difference in our health both now and down the long haul.

Nicki: Absolutely. Thanks you all for joining us. Remember to check out our show sponsor Ned, go to helloned.com/salty15 and enter code salty 15 at checkout for 15% off your first order.

Robb: Bye everybody.

Nicki: And we'll see you next week. As always Salty Talk episodes are brought to you by Drink LMNT, the only electrolyte drink mix that's salty enough to make a

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