

Flex Diet, Phys Flex, Metabolism and Nutrition Research for ...

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SPEAKERS

Jeb Johnston, Dean Guedo, Dr. Mike T Nelson



Dr. Mike T Nelson 00:02

Hey, what's going on? It's Dr. Mike Nelson here, I am back with another podcast for you in the flex diet Podcast. Today I have a special treat for you, my good buddies, Jeb, and Dean, who set up a brand new mentorship through compound performance. You can find an older podcast I did here with my good buddy Kyle Dobbs from compound performance. Dean and Jeb have both been on the podcast before so look for episodes from them too. But on this one, this is an interview that is actually used in the new compound performance, nutrition, mentorship, and I get paid \$0 To, to support it, but they're doing great stuff. So I wanted to help support it. And I asked them if I could use this interview that I did for them, which is inside the mentorship. If I could put it up as a video and include it in the podcast. And they graciously said yes. So in this podcast, I talked with them about the PhD process, I went through my PhD in exercise physiology, a little bit into math about linear versus nonlinear statistics, hopefully doesn't bore you all too much. But it is important because most research studies are looking at the averages. And if you're a coach, or working with people, you're not generally working with an average you're working with an n of one or an individual. So understanding those differences and stats and variability analysis, I think is important. How do you condense information, kind of the process I went through to create the flex diet cert and condensing down information, which I think is much more useful. If you want the large breadth of knowledge, then take a college course and go that route. There's a time and a place for that, of course. But most people want more of the information. And how do you condense that but still respect the context and make sure that it is accurate. We then talk a little bit about the physiologic flexibility cert, different brain structures, such as the limbic verse, His prefrontal cortex, what is the difference, they're experimenting with crawling into a large tank of cold water for well over a year and a half. And a little bit of bantering back and forth about calories in calories out and that can we measure exercise really close and use that as a metric for calories out, but nothing is done in a vacuum. So enjoy this podcast here on the compound performance. If you need more information about their mentorship, go to the link that you'll find below here or just compound performance. Thank you so much



J Jeb Johnston 03:18

Alright guys, so um, you know in this series we have going here with our our interviews with our favorite fitness professionals. We have a longtime friend of ours Dr. Mighty Nelson. Mike is like one of like three people I would say I've known longest in the fitness industry. My first seminar ever went to I met Mike Dean, I know Mike was one of the biggest early influences on him and really kind of brought you know, correct me if I'm wrong but But Mike kind of brought you into the industry really introduced you to a lot of people and so from a personal level, a professional level and education level, Mike is is definitely been one of the biggest influences on both of our careers and our trajectory. So you know, that's kind of explaining what we're trying to do here in this mentorship. I mean, Mike is is one of our mentors so so it's so perfect to have him on. So you know Mike for those of you I'm pretty sure everyone knows you but for those who might not know you can you just give yourself a quick like background intro. I know there is no quick intro because you have nothing your education and your professional life. It's pretty large for the best

D Dean Guedo 04:38

10 PhDs and all these things. You have to list them off.

D Dr. Mike T Nelson 04:44

Yeah, thank you so much for the wonderful intro. Awesome to know you guys for so long. Thank you for having me on here. It's a great honor. So I did 18 years of college full time, which I would not recommend to anyone. I definitely did not start out that way. So I did the Bachelor of Arts and natural sciences, undergrad, minor math minor chemistry degree as a postgraduate work and then did a master's in mechanical engineering. More on the biomechanics side, but my thesis was on heat transfer. So how do you do a computer model of a monkey in front of the big ass microwave transmitter, which was later used for the military to make their own ray gun to shoot people? UPS is actually true. You've got something called the Active Denial System.

D Dean Guedo 05:29

Every time you bring that up, I are thinking about Austin Powers and like the sharks, yeah, who's not what it is. But like, in my head, that's what you did like you research.

D Dr. Mike T Nelson 05:38

Yeah. Yeah. And it was so funny at the time there like it was so classified. They couldn't tell me it was classified. And so I published the paper in the IEEE journal, peer reviewed journal. And I'm like, Hey, there's like these three other people from Brooks Air Force base that just spontaneously appeared on my work. Like, that's kind of fishy. My advisor was like, Oh, just don't worry about it. Like, okay. Yeah, so finish that decided, I'm never going back to school again. After eight years of full time. That lasted about two years, I worked in medical device field for about 10 years, cardiovascular products, pacemakers, defibrillators, I started doing a PhD in Biomedical Engineering. I did that for God, almost five years. But it's all the classwork except for two classes, decided I didn't really want to do any more math, so and I was spending

all my free time doing some training, going to conferences, just annoying the piss out of people at conferences, because I would sit there and I'd be in the back. I'm like, Hey, do you guys see this study on this thing? And they're like, no, like, oh, but you definitely read this study about this thing. They're like, No, like, what are you doing here? And I'm like, but you guys, your trainers, right? You guys read research, right? Like, no, we come to these conferences, like what are you doing here? I just annoyed a bunch of people at conferences for a while. I went over to the physiology department, and started there. And literally the first meeting, my advisor walks in, he's like, Hey, I got two new projects. One's on metabolic flexibility. One's on heart rate variability. And they both involve math. And he looks around the table. And he points at me at the end. He's like you, math, boy, whatever your name is, like, these are your projects. Now. I was like, Oh, shit, you got to be kidding me. Like I dropped out of the other program. Because I got tired of doing math, I go to the physiology to do physiology stuff. And I get assigned stuff that has to do with math. But the math was relatively easy by that point. Comparatively speaking, as my PhD took seven years full time. And since then, I haven't gone back for any formal school. If I did, my wife would probably kill me and rightfully so. Go back for at this point, like if you that was actually, that was actually the greatest thing once I finished my PhD not only was it just the sense of relief of like, Thank God, I made it and didn't drop out and I got done. And then it was like, Oh, I can take and study whatever I want. And since I run my own business, no one really is gonna tell me yea or nay I don't need to apply it for degree I don't even care if anyone even knows about it doesn't matter. So for me, that was actually like the coolest thing. Because up until that point, you're like, Okay, I need to take this class, I'm gonna take biostats and there's a whole bunch of things you have to do as requirements. And whenever you take something outside of that, okay, now you're adding something extra that you don't really get credit for. And you're kind of taken away from other things. So it was super nice just to be like, Oh, hey, I can just do whatever continuing that I want. Oh, this is great. And then other training sites started training people 2006 the CIC SES dream people in person for a while commercial gyms, they filed bankruptcy and kicked me out. So at that point, I decided screw this I'm just trying people in my garage so called up gym miners working at Elite FTS at the time and had a two hour conversation about death metal training and how I should do more testosterone bought a rack from him. I love gym, but like, that's the only place you could have those types of conversations. And it would be like, okay, kind of expected, like, you know, you're calling. Okay, I kind of get it that makes sense. So sort of turning people in my garage, and eventually, probably 2011 2012 I switched to training people online, just because of what we kind of want to do with our lifestyle and where we wanted to go and did that and have a couple certifications. flextight surd, physiologic flexibility certification. They still do online training, one on one clients and Yeah, fun stuff.

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Dean Guedo 09:56

is actually pretty quick version of it. Yeah.

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Dr. Mike T Nelson 10:00

Sit down. Most people don't really care that much. So

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Dean Guedo 10:03

Well, if you've heard of your podcasts, like even your earlier ones, that's, that's a, and maybe I

haven't, I've heard it like 10 times at this point. And then I've heard it in person. Because it's way crazier. And personally, when you look, you look at your, your actual school load and what you did, it's like, I don't think people actually understand what, whatever seven years of PhD full time means. It

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Dr. Mike T Nelson 10:25

was. Yeah, it was by far like the hardest thing I ever did my entire life like no, like, no question, because at the end, I was still working part time for a medical device company, because of basically just benefits. Right? So we bought a house. I got married during that time. And yeah, I had a stipend for doing research. But they gave me what, \$600 a month, you know, yeah, it's like, either doesn't pay for half my house payment, you know. So it's like unrealistic that you could live on that plus, the insurance is just horrible. So I made a deal with where I was working at drop down and 24 hours a week was on call full time. And then about four and a half years into that I'm like, Oh, I'll be done in half a year be five years, this is great. So I hired a business coach started ramping up my online training. And at that point, everything just got stretched out and ended up being seven years. So the last two and a half years were just horrible, because I was I was paid a business coach \$2,500 a month, I was still trying to do stuff, you know, with him. And it always looked like I'm like, okay, it just be a few months more longer, right. I never really had a hard timeline when I was done. So in the last two and a half years, we're just like, miserable, you know, you're screwed when you're collecting data, cuz you have to be in the lab at five in the morning. And then your first break is nine, where you have 20 minutes to go take a caffeine power nap in the back of your car, and then come back to the lab, and then go to work in the afternoon, come back to the lab and then go back home. And if you're leaving the lab at nine at night, and you're seriously wondering, like, why am I even going home, I gotta be back here at five in the morning. So a couple of nights, I actually slept in one of the we have a hospital bed and the other room for testing. So I just slept in there. Never went back home.

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Jeb Johnston 12:09

It's crazy, like listening to all these people. Like, you know, like Traxler talking about Yeah, you know, like, geez, like, you know, like, they kind of barely trained anymore if they they got into this stuff, because it was like they were training. But then it's like, all of a sudden, it's like all the things that I loved. And I got into this, like now I don't have time for those things. And it's

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Dean Guedo 12:27

brutal. It's not to tell people not to do their PhD. I think I don't know what but like, you can call you a doctor now. Like, is that like the biggest benefit here?

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Dr. Mike T Nelson 12:37

Probably no, nobody does it anyway, nobody cares. So I mean, I literally got to the point where it was like, okay, am I going to finish my degree at this institution? You know, and for a while it didn't look like I was because my third study had fallen apart. Nothing I did wrong. It's just the

data didn't work out. Like we didn't find what we thought. And they're like, we're not publishing it. I'm like, well, we got the data, like we got a result. It's just not a positive result. So no, we're not publishing it. We wouldn't mean we're not publishing, I spent a year and a half working on this thing. And you're I need a third publication order to finish my PhD. I studied previous to that. I couldn't publish because the data, the standard deviation was too too wide. Meaning that Oh, you must suck when you did the ultrasound measurements. I'm like, Well, what if I just got like highly variable people, right? Because we're doing healthy measurements on blood flow. Yeah. And it turns out that, you know, there's a huge variation in healthy population. And I just happen to get like, the outliers on both ends, right, which makes your stats look horrible. They're like, No, no, that'll never pass publication. So that study was done. So I have a year left before I have to be done, or I get nothing, right. There's a hard term seven year limit. And at that point, I'm thinking, oh, man, I tried to get another study going, I started it. And I literally had a discussion with my wife. I'm like, Okay, if I don't graduate from this university, is it something I really want to do? Am I okay to transfer to another university somewhere else? fly back home, like once a weekend knowing I have to start all my research over again, so research won't transfer. And she's like, Yeah, I think if this is something you really want to do, then then that's okay. It's I kind of crossed the threshold of, okay, this is something I'm going to do for no other reason other than I just want to do it. Right, because if I've looked forward into the future, I think I would have regretted not doing it, even if that meant transferring to another university, you know, doing something, you know, pretty crazy at that point. So now, I think this

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Jeb Johnston 14:40

is such a good, like, kind of corollary to just like so many things we talk about is like, especially, you know, I get on this big thing of like, you know, what is discipline what is motivation? And it's like when you really truly value something and like it It doesn't matter what the obstacles are, right? Like, this is something that that I, if you said, if for no other reason, then this is just something I really truly want. Yeah, it's like the the the, like, things that the things we will go to, in order to make that happen are on like unthinkable. Like, if you really look back on that time now, and like with where you're at and like, you know, happy that you did it. But like, if you had known at the beginning of that, what would have it would have entailed, that whole thing might have not ever happened if someone told me, Hey, here is 12 or 13 years of your life to get to this outcome. It's a tough sell.

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Dr. Mike T Nelson 15:51

No, I mean, I, if I knew everything that went into it, I probably would just not, I would have not done it. Which is a weird catch. 22, right, because there's the sunk cost fallacy as of right. And that's what I was doing with my PhD in biomed, I had gotten so far down the path. And I had a hard time finding research because I worked for biomed company at the time, that particular company was not sponsoring labs University of Minnesota. So even to get a non de an NDA, so legal stuff to say, Hey, I'm not going to tell anyone your trade secrets. Even just funding was very, very difficult. And you kind of have to have funding in order to use equipment and do everything else. But the same point I had, I was, had two classes left, you know, to finish the classwork portion of it, even though I hadn't started research. And that took me you know, four and a half years. And all I kept thinking was okay, if I just need a couple more years of research, I can be done with it, and then decide to do whatever I want at that point. And I remember sitting in a class on MRIs, I had to take electrical engineering elective. I'm sitting in

this class of MRIs, and professors starts writing a bunch of stuff up on the board. I'm looking around and I'm like, I have a minor in Mathematics. And I don't even know what he's writing up there. And so elbow the the kid next to me, and these are all like, you know, majors and math PhDs in physics. I asked this a man, do you know what's going on here? And he goes, No, and he's just frantically writing shit down. And I'm like, Oh, when I knew I was hosed when like the second day, he's like, Okay, now we're gonna derive all the mathematical equations that are used in an MRI. And it turns out, there was another math requirement that I didn't have for the class, which is I don't understand any of the math. I'm like, oh, there's things called Bessel equations and stuff like past, like calc four, I didn't even know these things existed. And at this point, I'm just thinking, I'm like, Okay, this is kind of the point of no return. Like if I some, by some minor miracle, find a way to pass this class, then I have to finish this degree, because I'm not going back again. And I just kind of thought about it. And I just said, No, I'm out. I just, you know, if this is what I really want to do, not really. So I dropped out and went over to the physiology department and started that fall, which is even more interesting that once you're in a Ph. D program, you can actually transfer pretty easy. But what most of you don't know, for me to get into that program took me a year and a half. And I applied, I was rejected, applied again, and I never heard anything back. And so this went on for like eight months. And so I'm like, hey, just tell me if I'm in or not. And so eventually, I got annoyed. So I started showing up as Okay, who's the guy who has to decide this? Oh, it's on the department, Provos, whatever, whatever his desk, great. What are his office hours? So I just started showing up at this guy's office hours, which randomly he never was there. One day he shows up, because who are you told my name? And he's like, I see I applied for your program a year and a half ago, I heard you're the one reviewing my thing. I just need to know when you're going to look at it and give me a date. He was like, Ah, I don't know where it is. It's probably lost somewhere. And this guy has mount like you can barely see his head over like the piles of paper, just everywhere in his office. And for some reason, I was just feeling like a dickhead at this point. And so I point to this purple folder that's buried in all these files. And I jokingly said, Oh, maybe that's it. And he pulls up the file he goes, holy shit, it is real. Yeah. And he's looking at it and he's going I don't know your GPA is pretty low like dude like I busted my ass for like a three five GPA from like a legitimate like engineering school. And unfortunately the guy who I took my GRE told me he's like, Oh yeah, don't study for the GRE just walk in and take it. So me like being an idiot followed his advice. Just walked in one day took the GRE. And so my GRE was like the inverse of like every engineering person known demand, like the written and verbal were great. The math was like the lowest They had ever seen, because I was trying to solve all the equations and you run out of time, right? The trick is just figure out which one it's not because it is multiple choice, because you're penalized for if you don't answer questions. This is like the old version. And he's like, Well, your GRE technically meets the criteria, but your max score is the lowest we've ever seen.

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Dr. Mike T Nelson 20:21

And so he's like, Well, we'll admit you on probation. So I had to go get two letters of recommendation. And he's like, You were on probation for two quarters. And I was telling him like, Hey, man, I've been taking classes for, you know, a year and a half, like, I have a 4.0 in every single class I've taken here at your institution. And he's like, I don't know. So nicely sorted. I eventually got in, which was great. And then once you're in like transfer was was like, pretty easy. So there's always like, some weird obstacles to like, stuff. You think that like, I'm looking at my GPA? Oh, my God, I met all the requirements. This is easy. And not not so much.

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Dean Guedo 20:59

I'm still surprised that that's how you got in was you pick the random file, like that's was?

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Dr. Mike T Nelson 21:06

And the second that I said it, I was like, Oh, my God, that's such a huge douchebag a whole thing to say. But I was just so annoyed that I had spent so much time like, on this, I just wanted an answer, like I'm in or I'm out, just just give me an answer. So I can figure out you know, what to do next. So it was Yeah, I was shocked. You're like, Oh, it is.

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Jeb Johnston 21:26

There's, you know, coming back these commonalities. I mean, I know that I've seen success in a few different industries. Partially because I was always willing to just annoy the, the person that I wanted, right? The under, like, the successful person that was, you know, that I was like, I'm just gonna go annoy this person. I'm just gonna be there. And then when the opportunity presents itself, it's like, fuck, let's just let's just give him a shot. So he'll shut up. And Dean, I mean, Dean, definitely, Dean just started showing up at stuff like

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Dean Guedo 21:59

I think part of it is like, I just genuinely like the shit. I'm there. And everyone even with my totally part of it, as I didn't really know who Mike was, at the time, cuz I just I like came from the industry. I was a power lifter was a teacher. And anyways, I was just like, he had a good presentation, I want to ask him this question. Everyone's like, not asking you questions, the rest of history, but I did it with everyone. It's like I showed up at hype the workout with Pat, because, because he was talking shit. But I'm like, I'll go lift with these guys. And most people are scared to do that. And I was just I don't know, it's just like any other business interview, what to look at, it's like, these people are just normal.

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Jeb Johnston 22:33

I don't know, I didn't know anything about the industry outside of powerlifting. And I met Mike and I just remember, like, we were like, good at eating like barbecue, and just he starts talking about HRV. And I'm just like, because I knew a little bit about HRV. And all of a sudden, he starts talking and I'm like, Holy shit, this guy knows more about HRV than anyone else, like, wow, this is before anyone is really I mean, it was kind of on the radar, but not really. And I was just like, Oh my God, who is this? Anything you presented like the next day, but I was just like, good God. But it's the same thing was like, you know, just, you know, just talking to people asking people act, because you actually Pete, we had a great post the other day about like, talking to some dude at a seminar, and the guy asked him about what he does. And because he had presented and he's talking about himself, and, and he is just some guy, some guy named James. And he's like, I had decided to look him up when I got home. And it was James clear, who ends up you know, going atomic habits. He's like, I didn't even ask what he did like a

dummy. He's like, but you know, this guy's successful. Because what does he do? He goes and ask other people about what they do and how they got successful. And then he writes a book about how people got successful from doing the thing that they did.

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Dr. Mike T Nelson 23:44

Yeah, and but I mean, the trick is that everybody wants to talk about the thing they're interested in, you know, and I luckily figured that out. Semi early on, I figured it out through an interview course, that take a course when I was working in med tech about how to interview people. And one of the things I realized was like, if you just ask them about what they're interested in, especially if they're really nervous that they get much more relaxed, and especially working with academics, you know, sometimes a presentation skills are not all the best or interpersonal skills, sometimes they're great. Sometimes they're not. But if you kind of stay in their wheelhouse and ask him stuff about, you know, ideally things that you're also interested in, they're like, Oh, hey, that guy was pretty cool. Like, you never really doesn't know anything about you, but because you are interested in him or her. They're like, Oh, that's a great dude. Like, he doesn't know anything about you, but you were interested in what they were presenting. So you're like, Oh, it's great.

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Dean Guedo 24:38

Well, that's a good segue into kind of what we're doing not not to say your your nerd who's bad at presenting you have to be interested in but like if we look at like your education background, like one of the HRV and met flex, and I know we're here to talk about med flex but like what about because like you weren't necessarily interested in it, and now it's shaped everything you did for me Right. So like, where do we get in? We're looking for background information on this stuff, because it's kind of interesting to see how people got there because mentorship, like that process is probably helpful. But how did you start to develop, I guess, into what you're doing now, based on where you came from. Because at that point, it was like the infancy of that stuff. Right? And then now, yeah, the centerpiece of what you're doing. So like, I don't know how to kind of walk people through that. But like, why, why are you doing it the way you're doing it? And how did that influence it?

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Dr. Mike T Nelson 25:30

Yeah, it's fascinating that you look, you look back at like certain things that just sort of happen. And they almost all happen, like what we talked about with people just putting themselves out there and doing stuff. Right. I remember get an invite to the National Society of sports nutrition in 2011, from Jose Antonio, as a PhD student at the time, and he's like, hey, I want you to come to them a metabolic flexibility. I'm like, Oh, that's cool. And then I realized that like, Hey, do I get the money to do this? He's like, No, like Best Buy my own airfare. Yeah. It's like, oh, just go get an industry sponsor like. And I told him initially, I said, No, I can't do it. Man. I just, I can't justify the funds expenditure for the presentation. And then I looked to see who else was presenting. I was like, oh, Lucia, there's presenting. Oh, cool. I want to get an article by like, one thing that I had the time is, I want to be in men's health and have Lou Schuler edit one of my articles. So I called Joey, back in my Hey, man, can I still do it? It's like, Alright, cool. In my head. I'm thinking all while I'm presenting. So Lou is presenting. So we're like, at the same

level, right? Because we're both presenting. Long story short, I ended up going there I met Lou got him to go to a presentation got a feature on metabolic flexibility. And the men's health issue is on the cover. And again, all things just show up by being interested in the topic. So back to the PhD stuff. Same thing, like I had been knew nothing about HRV, other than some of the stuff omega wave had been doing, didn't know anything about metabolic flexibility. I remember my co advisor, the first time he explained it to me, I was like,

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Dr. Mike T Nelson 27:10

that doesn't sound interesting, like your body teach it to use fat and teach it to use carbs. Isn't that what it's supposed to do? Like, I don't know what we're looking at here. The thing I kind of didn't understand is that, oh, that's a healthy person. When stuff isn't healthy, it goes sideways. And it gives you a framework to look at things. And then previous to that I had always been interested in variability and other forms of math beyond just the standard linear statistics. I'd always been interested in, like, why is an outlier, an outlier? Right? So what's going on with them? And it so happened that the math lined up with it. So we used variability analysis to look at metabolic flexibility. We use the same math from heart rate variability. So if you've read like, range by David Epstein, can you take two disciplines and kind of do a Venn diagram and see where they overlap? Right, especially now, that's probably where more of the interesting things are. So we took the math from variability analysis from heart rate, and we applied it to the respiratory exchange ratio, the little marker that tells you how much fat versus how much carbs are using. And we looked at not just the average, but a variability analysis of it. So my thesis was technically titled, you know, fine scale variability analysis across physiologic systems. And what we find is that if you look at the variability, so how much these little things move around, right throughout the rest, your heart rate is not 70.0. It's 69.8 71.2 70.5. There's this little bit of variation. It turns out that little bit of variation is a marker for a healthy physiologic system. And to date, like all the systems, we've looked at, heart rate, postural control, a gait, metabolic stuff breathing. So far, that principle has stayed true. So related to that I'm super fascinated on what are the principles that govern physiology? And do they govern other things? And it turns out that if you understand the main principles, you can figure out a whole bunch of stuff. And to me, a principle should apply across multiple domains. Right? So fine scale variability is a marker for health, that should apply to heart rate, it should apply to gait should have applied and metabolism, it should apply to these other areas across different systems. So that's kind of how I got into it. And at the time, like neither one of those things was like popular at all. I remember that. The first call I had a marketing call with Ryan Lee, who I really liked his stuff, good buddy. I had done just a short review on metabolic flexibility and I stuck it out in my old Blogger account, and I didn't really expect anyone to read it. But my thoughts Was I want a marker in time that I did this work. And here's what it was not necessarily expecting anyone to understand it, right? So it becomes popular in 10 years, I have a written record of, you know, hey, I actually did this thing on this date. And it so happened that I had a call with Ryan on that exact day. You know, he being you know, does his homework goes to my blog account, and he reads it. I get on the phone with him. He's like, Hey, how's it going? Good. He's like, Hey, what the app is this thing? Like, no one's gonna fuckin read any of this. And I was like, Yeah, good point.

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Dean Guedo 30:39

They still don't, but they'll buy the products. Like, again, if you look at omega Wait, like omega wave is like, it's awesome in like, no one uses it. They'd rather just do whoop. But like, now,

whoops, I have tons of clients that are like, Yeah, I have looping the screen and HRV. And my Apple Watch says this, but like, no one actually wants to go read the article on what HRV is. Like, yeah, it's like you said math.

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Dr. Mike T Nelson 31:07

And that's the hard part to write because everybody wants the answer. Right? So obviously, I have a course on heart rate variability too. And people are like, well, I got a green. So I'm good, right? I'm like, Yeah, this is showing you a marker of stress. Right? I can redline my my car and get to the grocery store faster. Does that mean it's good to redline my car every day? Because I got a higher level of performance? Probably not. Right. So it's again, looking at context, looking at the big picture, but also figuring out what are specific action items to do when I set up the flex diet? Sure. The SIRT, shameless promotion, the three things I had in my head that I had to solve was, how do I educate people on the big picture? Right? So they have context, right, everybody? Dr. Ben house has talked a lot about that, too. How do I give them technical information? That's not eight hours, right? Because the reality was, it would be way easier for me to do an eight hour lecture on all things about protein, than it would be a 45 minute lecture on most things a trainer needs to know about protein, right? The condensed version is much more difficult to do to make it actually accurate. However, to the end user, it's a lot more valuable, right? Because Oh, I can get most of what I need to know in an hour. Okay, that's, that's useful. And then how do I add specific action items, but still in a flexible framework? Because it's, as you guys know, like proteins a little bit easier, but you start getting to like carbohydrates before like, oh, what's the magical equation to tell you how many carbohydrates to eat? I don't know. Like, I don't think anybody knows. Right? It's there's too much variability. But we can give you a system where you can figure out how to do it. So how do I give people specific action items? Because what I realized looking at other certifications, if you did really good on the context part, right, so some people have good research reviews, the application was horrible. And you've got the other line, you've got the Instagram fitness and fluor influencer was like, I have your magical equation for carbohydrates, which is complete bullshit, not based on anything. So how do you kind of get in the middle road where you have a big picture, you have technical information, and then you have specific action items, so that the client and the person actually does the thing that you want them to do?

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Dean Guedo 33:32

That's where like, even if you like, because if you look at your cert and kind of what you do with the action items, like they're there, there's a bunch of them, and then there's science behind it. But when you look at like you said Instagram versus a lot of the information on those spectrums, the Instagram, people will give you the fucking action item. Right? It's probably not rooted in any science, but they get people to do it. And so it's like, yeah, as fitness professionals, like how do we get them to do good stuff? Not right, whatever the fuck that they're doing, you know what I mean? Is that Yeah,

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Jeb Johnston 34:04

I was gonna say, I think that is the kind of the lesson here in your we've got Ben is Ben's doing a content piece, kind of what we talked about, but, but I think that's the lesson here is, is everyone that's in this program is gonna be on a spectrum. right? So we're gonna have

people that are in here that are PhDs, or that are PhD candidates that that are going to be great researchers, we're gonna have other people who are going to be like, hey, you know, this is not my Millia. But like, I can learn to read at least understand the research and and disseminate the things that you're putting out, or that that are coming from the research and how do we bring that down to the Gen pop level? And I think that's such a good lesson there is like, yeah, the eight hours where the content is where where the magic is. Yeah, it's hard to sell to Karen and Chad. So how do we break that down? I think that's kind of

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Dean Guedo 34:59

it. How did you break this? Because this that's actually like a good lead into kind of what I was thinking was that, like, we both know you have 1000s of studies, okay? And then like your Rolodex. And I know you tried to memorize them, even though we can't find the postal study to bring that up, because like, no one can find it. But like, if I look even at we'll just use protein, for example, I think there's like, like, you kind of layered it narrowed down to like 10 studies, like, how do you go through that process to figure out what is important, I guess, the coach, and then for them to get to the end user, because you could have picked a million studies. And now you've, you've narrowed it down, like, what goes to your head with that? Just from your background?

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Dr. Mike T Nelson 35:45

Yeah, so for me, the pain in the ass factor, although I like doing it, but it's a monster pain in the ass is going through a lot of the research to make sure what I'm actually saying is accurate. Because no one's gonna sit down and read, you know, 50 studies on protein or whatever the number is more than that. But what is the consensus for it? Right? And some people will look at a meta analysis or looking at a position, Stan, those are all great. But you know, for what individuals, what population? And then you're looking for what are the commonalities and where are they different? Right. So for protein and simple example is, a lot of the studies that are done are done on young college people, because they're easy to get into studies should have been more probably grad students in the department. So they're okay with getting, you know, weird exercise Essentrics, and muscle biopsies and tissue taken out and all this kind of invasive stuff. But if you're dealing with a client who's 75 years old, right, do those studies from those young people still apply to somebody who's older? And if you've only read the studies on the younger college people, and you're like, I have all the randomized controlled trials, aha. And then you find one that's looks at an older population, and finds the protein may actually be higher, right? 20 grams, a way to get an acute response may not be enough, we need 40 grams. Oh, okay, that doesn't know fit your paradigm of like, all you need is X amount of protein. So in my brain, I'm trying to figure out what is the simplest way I can keep the message, but yet still make it accurate? And in what cases do I need to deviate a little bit from that, in the case of protein, if you're younger, you can probably get by with a little bit less protein. If you're older, most of the data shows and supports that you actually need more protein, especially at an acute feeding. So that's not quite a simple response of, oh, just have 20 grams per meal. Right now, when you're giving other recommendations, do they account for all of that? Do they account for different types of protein, so maybe I'm using a rice protein as a supplement, or I'm on a vegan diet. So one things I had in there was a four by 40 approach. So get four meals get 40 grams of protein at each meal. And how I got that was, that pretty much covers almost all your cases, if you're using rice protein as your main protein, this is a study

done by Jordan, Joy showed in that 40 grams of protein is going to be enough to get a response by using rice protein and plant protein. If you're using older adults, right, so Yang did a study, average age was 7140 grams of protein is enough to see an acute bump in protein synthetic response. So that approach was on the lower end of total protein is going to cover you know, most people pretty good. So that's kind of a simple action item that you can take out from all the very, very complicated research.

J Jeb Johnston 38:54

I think that actually that that four by 40 approach is one of the things and it's it, it seems so like kind of simple and almost like a little bit of a throwaway thing, but when I when you first mentioned that or spoke about it, it really resonated with me in a in a way different than than just this idea of like for boluses of 40 grams of protein. It helped me think categorically and a little more critically about other things. Because what it did was instead of just when I looked at protein was like, okay, you know, we could say a gram per pound of body weight right now, in essence, most guys are going to be like somewhere between like five, seven and 510, you know, probably mean holding around 160 pounds of you know, massive best, right? So like even if they're 200 pounds, like how much lean mass there. So we're probably covering our bases there by doing that. If it's high, probably no harm there. If it's a little bit low, also probably no harm and we're talking about most people are looking for performance or health or in So it was like one of these things that was just a simple like, equation of like a four by 40. But it, it actually made me think about the idea of protein synthesis in such a different way, which I think translated into my thought process and a lot of other things. How can we simplify things for the end user while still covering all of our bases

D Dean Guedo 40:22

when not being like crazy about it? Because like, it was like muscle 14 says, We need to hit it all the time. And then you're like, like, I think the action items called simpleton or whatever and in your in your search, and it was like, who cares? Just hit 40 grams of protein this many times a day, and you're covered? Like, everything's covered? There's actually like, no minutiae here, you could try to be minute, but like that would it probably would be the same thing.

J Jeb Johnston 40:47

Yeah, that the percent of difference would be you know, non non non US, it would be such a non starter that the extra effort of trying to get perfect with it wouldn't actually pay off

D Dean Guedo 41:01

even even that part of it. So like we talked about this, not relevant to the cat is because we presented for compound yesterday, we're talking protein shakes after workouts, and I'm like, I'm going to do it no matter what. But after you kind of look at, like you said, the research and even if you go to your course, it's like, it doesn't matter if if you had like 40 grams of protein and 30 grams of protein, like, within three hours, like you're you're more than likely fine. Like whoever was telling you that stuff was probably didn't actually read the research. Well,

J Jeb Johnston 41:29

maybe wasn't the research, that protein timing research. I mean, there was people that spent their entire careers on it. And then yeah, let me I think even band wasn't Ben's PhD, but it was nutrient timing, timing, but he was like, he was like, basically afterwards. He was like, Oh, that was a big letdown.

D Dr. Mike T Nelson 41:46

Yeah. Yeah, the nutrient timing, depends to like IV stuff was all extrapolated into protein and IVs worked on IV stuff was all in carbohydrates. And when you extrapolated into protein, it was real split. Right? You look at Paul cribs stuff, like one of the earliest studies done on protein, carbohydrates, and creatine, awesome study, like high level bodybuilders. DEXA, macros are all the same, they just moved that pre and post shake, 2am and PM, what they saw was like a pretty damn big difference. And you've got other groups that Jay Hoffman's group tried to replicate the study, they got a different result, trying to study was a little bit different. So you're left with like, 5050 might help might not. And I remember at ISSN talking to Paul Graham, who was awesome from Australia, I asked Mr. Amen. I said, You did the study, everything looks good. We've got these other studies that kind of disagree. And obviously, this is your main research, you did your PhD in this field. Like, if you were to speculate, like, what do you think is going on? Like, why do you see some benefit and others don't? And he looks at me and he goes, I don't know, mate, I have no idea. And I'm like, Oh, do even the people who did the studies, like the result is still the result, right? There's no real study was bad. They're not even sure, right. And these are the people who have dedicated, you know, multiple years of their life to try to figure this out. So it gets super far down in the weeds to

J Jeb Johnston 43:15

when it was a great win, win win. Dean, I did this course we did this writing course where it was, like all like, like PhDs, like people who've been studying it for like, 70 years, it was crazy. But someone just described like these, these people who had been researching this, like, I mean, this one guy was researching and we still can't figure that out. Bananas. He was an adult, but it was it was a ginger. Ginger is related to banana. And I don't know if he meant like ginger, like the root, we still don't know. But this guy was like, you know, someone talks about like, going out the branches where you like, this is the tree and they've gone so far down the branches that they're on the tip of this leaf. And they have no idea what the roots even look like anymore.

D Dean Guedo 43:56

Like, see, he's like,

J Jeb Johnston 43:59

he's yelling at people because people don't and we don't even know what he's talking about.

And we're

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Dean Guedo 44:04

like, still, this was the distill the message into like, one sentence and he's like, you get going. He's like, no one sentence he like he but but but. And then we're like, what? I think he doesn't know what he's like, he knows what he's talking about. But like, no one cares. And it kind of got to that point, then he was like, why should people care? Like, well, because it's a banana. It is ginger. Like within?

J

Jeb Johnston 44:25

Yeah, they still think it was like this guy's like 75 years old. He'd been researching this stuff for like, 55 years, like, you know, you're just like, but again, like, you get so far down that path that you don't even realize what it is that the actual problem trying to solve is. And so it's like, hey, if we forget about that, then it doesn't really matter.

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Dr. Mike T Nelson 44:50

Yeah, that makes that path is highly rewarded. Right? That's the part that people forget. Like all your incentives are for you to be the man or the woman. On this particular thing, and the more niche, it is probably the better in general, right? Because anything you do starts to become novel, it's easier to publish stuff that's novel journals wanted, it's a little bit more sexy, and, you know, you're the person for this particular thing. But then you get out in the real world, or you have an application that has to be tied to it. You're like, Hmm, I don't know, like I my goal, what I'm, I'm not thinking about application that's just not in my wheelhouse. I'm rewarded for this next study on this next, you know, whiz bang, little thing just looking smaller and smaller and smaller. And it's hard to pull yourself back from that, when that's been your whole career that you've been rewarded for too.

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Dean Guedo 45:43

Well, so how do you go like, this is actually a great segue. And that wasn't even planned. But like, your core, and this is physiological flexibility to it's structured in a way to like, I guess, have strength of application, like what goes in your thought process of how you structured it, because like, even if I look bass level, there's like protein and you fat as fuel and micronutrients. And then you kind of go down the ladder. Like when you're looking at it from your background. Like, how did you go about trying to not be a weird banana ginger, dude down the rabbit hole of another black hole in a rabbit hole and black hole to this application side? Because I think like, even if we look at, give coaches that are gonna be doing this stuff, how did they kind of know, do what they know and learn what they learned to then get to that if they weren't gonna take your course? Like, what's your thought process? And how you scaffolded? That?

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Dr. Mike T Nelson 46:31

Yeah, a couple of things. One of the big things I thought was, what is the end goal, like, so if my goal is to help more people in general, which, again, very vague statement, but help them with nutrition and recovery? Great. Okay, so I could work one on one with clients. But if I work with coaches, that gives me a little bit more leverage, right, the coach can then help more people. So you get an exponential thing from there. If the coach just acquires all the information, is that good enough? Not really, because I don't know how they're applying it. So the old saying of new knowledge is not key applied knowledge is key. But how do I give them the knowledge? And how do I make sure that it's applied? That's where I realized that some other places can I think, dropped the ball by not making it specific enough. And trainers would get hung up on? Oh, yeah, the protein lecture was great. Okay. Yeah, you know, one gram per pound of body weight. Okay, maybe that's useful. But what exactly do I do with that? And how do I scale it? Alright, so like the four by 40 approach, the scaling is easy, because the point to scale, so you can either scale the number of meals, or you can scale the protein amount. And you can really go either way, the person is going to end up being better, which is fine. But if you had a choice, I would leave the amount higher, and then scale the number of meals. So that way, I know that they're getting the physiologic response that I want. And we're just scaling that up over time. So one of the things I had to try to figure out was, how do I make it scalable, because not everyone's gonna come in and be like, like the bowling analogy, right? Of Okay, most nutrition coaching is, I give you exact macros that I've, I don't know, pulled out of my ass, basically. But these are your exact macros. And if you don't make it, I'm just gonna be more hardcore, and have you do more compliance and all this stuff. It's like going to the bowling alley and like, just bowl strikes, right? I'm your coach, your job is just a bowl strikes all the time. Like, then maybe we put little bumpers in the side. So your whole goal is to weave around and just knock some pins down. Right, my job as a coach is to keep you in this lane that you don't end up like, you know, four lanes down, you know, throwing, you know, whatever down the alley, right, because that's where most people end up by themselves. But I realized, if you again, eliminate that fine scale variability, that skill set of them learning to weave within a certain pattern, you're expecting them to bowl strikes all the time, which is just not realistic. And then when you release them in the real world, it's just a frickin disaster. Right? So again, let them make mistakes, but still have them make progress, because that's the real world. So if I go back to how do you scale that? So what are the things that I want to scale in terms of action items? And then if I go up one level from that, like, how did I get to those action items? Like we talked about reading a lot of literature, talking to coaches trying stuff on my own screwing up my own clients, which, sorry, clients gotten better over time. And then once I think I have something so let's say four by 40 approach, then I do all sorts of weird stuff to try to disprove that thing. Right. So I'll, you know, do a bunch of breathing stuff in a float tank for hours on end. And my whole goal is to think about how can I disprove that thing? Right, so protein timing, okay, what if protein timing is a thing half the study say it is? Okay, if that's true, does a four by 40% cover it. Well, kind of you're eating four meals. So by definition, one of those gonna be free, one of those going to be posts is going to be a close enough time period. You're okay. Okay, what about older athletes? Okay, 40 grams enough? That's enough. What about younger athletes? 40 grams is enough, you know, so I tried to run all these different scenarios. And over time, if I could not disprove the thing, then okay, that kind of made the cut, that's probably something to go forward with, where the inverse doesn't work, but makes your ego feel better. Right? If you just keep looking for all of the data, right, you're trying to you're looking for all the white swans, when you're trying to find the black swans, then you feel good, and you've done a lot of effort. But you could very well have ended up with something that most of the data have agrees but can be invalidated by a single data point. So try to come up with your own hypothesis, play

with it and clients, and then spend a bunch of time trying to disprove it. If you're not able to disprove it, then you're probably on the right track. So that thing makes the cut, and then you just kind of move on to the next items.

J Jeb Johnston 51:04

Yeah, that I think finding the negatives in what we do has been the biggest benefit in terms of coaching is like, because there's going to be like, you know, looking at it, you know, we talk about something like, what are what are the downsides, and there's going to be some downsides, right? But if the downsides are outweighed by the positives, it's like, Alright, cool, then I'm still good with this, like, I'm okay with it. It's when there's downsides. And again, you know, we talked about like, you know, depending on the scale, and the clients you're working with things such as, you know, macros, like for some people, macros are a great option for some of the downsides far outweigh the positives. And you're like, okay, not knowing that, or ignoring that, I think is a big is a big issue right now.

D Dr. Mike T Nelson 51:51

Yeah. And that's why when I did the flextight, cert, I made a conscious effort to not use macros. But people were like, oh, oh, my god, well, how do you do it? And you're like, you're saying you never use macros with your clients? Like, no, I have some clients that we may use client macros a fair amount. But they're also pretty advanced. I know what we're trying to accomplish with that, too. I think if you go to a general population, or even some elite level athletes, right, some are good with counting, some are horrible, right? And the handful of elite athletes I've worked with their nutrition is just a trash bin fire is bad, right? I'm like, if you just got him eat more protein, and some micronutrients, do like two out of the eight interventions, like the times that that's actually been done, they're like, holy crap, this is amazing, right? So you don't need a super advanced approach all the time either. And I think in fitness, like county macros is held up as a super advanced approach. And again, there's a time and a place for that. But thinking that that's the only way to help most people, I just find that it backfires more often than it's useful.

D Dean Guedo 52:59

And that's why we brought you on, but like, we brought a bunch of people on to do stuff differently. Partially because like everyone thinks, like you said that macros is the super advanced right approach, it's actually it might actually be the simplest and least effective depending on who it is. And it might be the most effective you if you have a if you have a professional bowler, and their bowling strikes, like your macros works really great. Like those are the outliers that we get, but like they don't need bumpers, but Right, like a lot of time. And so anyways, it's interesting, because even if you look at how you scaffold it, if I remember correctly, I probably taken an older iteration of it, but you give people choices to write, like in terms of action steps, like with any of the things that you do, like how did you kind of come up with that? Because essentially, you're giving people ownership of it, but like, Where was your thought process? In terms of that element? Of your sir, I guess?



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Dr. Mike T Nelson 53:57

Yeah, because I still wanted like using the bullet analogy, I still wanted a flexible approach. Right? So going back to protein, it'd be very easy for me to say, Okay, here's your action for protein eat, you know, point seven grams of protein per pound of body weight, because I can show you all this, you know, shit ton of literature that says that's the number. If I want to scale up to you know, one gram per pound of body weight to cover the 99th percentile of bodybuilders and everybody else great. But I don't know if one that's novel. Most people know that to most people are not doing that. So where's the breakdown for there and all defense like one of the five action items is, hey, if you like math, and you want to be a very analytical approach, you know, minimum point seven to one that works, right for other people who want a more simple approach, maybe just getting 30 to 40 grams of protein at breakfast isn't approach, or use a four by 40 approach or four by 30. If you're a smaller mammal, right, I wanted options. And then I set it up in a way that the client is the one who actually picks the option. Because the reality is if I have five options for protein, I don't give a shit, which of those five you use, they're all set up to get you to the goal that you are wanting to get to. So they will all work. But the psychology is that they may not work for you. So I made the cert more heavy on the physiology, but I baked all of the psychology like into the system. So you would present the client with you know, as a coach, you're like, I think option one and three are the best. So you present those options to the client, and then just have them ranked using motivational interviewing one to 10. Right one mean, oh, this is like the worst thing ever. I'd rather be chased through the woods by oil duck grizzly bear with lasers and razor blades, to like 10 mean, oh, this is like, so easy. Like, I could have done this yesterday. Right. And you're looking for the things that have at least an eight or nine or a 10. So you're allowing yourself to literally rig the system in the clients favor, which seems to be like, the simple thing to do is to use their current psychology to their advantage. And then yeah, you can make changes to it over time. But what we tend to do is we tend to make things like super hard, and you got to pull strikes all the time. Here's your perfect macros. Oh, you didn't hit your perfect macros, I just yell at you more, you need to check in more often and log harder, try harder, right? It's like, why don't we just set it up in a way that we're getting the result we want? We're getting them to do the right things. But we're gonna rig the system in the clients favor to make it easier for them. Isn't that like the whole? The whole goal of like coaching?

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Dean Guedo 56:41

Well, like the resistance is

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Jeb Johnston 56:42

Lisa's doing a segment on here. Lisa Lewis, awesome. No. And yeah, here's here's on motivation. And like, literally, what you just described is the basis of self determination, theory of autonomy, competence, and then the relatedness of being with the character, it's like, literally giving them things that they can do well, giving them the autonomy of making the choice. And then obviously, the community of you been within that. So like, it's, it's it. And that's why I, it's so funny, because people, people probably zero in on the metabolic piece of this, I always you're in on the flexibility. Yeah, that's where the magic really is. It's like the and that's why I love that you did the physiological and you talked about psychological flexibility. Because, again, as you kind of branch into more of these things, you start to see that, hey, people can be successful across the spectrum, by applying this principle all around,

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Dr. Mike T Nelson 57:38

even with the psychological, same thing, like you're setting the people up to have the skills that you want, once they're done with you. Right. So I mean, I made this mistake, when I started, I'm like, Ah, meal plans are the thing. These people just don't know what to do. So I spent hours like, you know, using expensive software or books to make sure they had all the micronutrients and writing this all down and presenting it to them for you know, way too cheap of a price. And then thinking that I solved all their issues, and then did that for a year and beat my head against the wall going, I don't these people do anything, you know, and so then I go down the whole rabbit hole of, you know, I didn't go psychology. I did neurobiology, because I'm like, Well, how does your brain work? Like, what does it think about? How does it make decisions? Because like, you know, one of the early clients I had, I kept berating him about eating sleeves of Oreos every day. And he kept eating more Oreos, I'm good, what is going on? He agrees with me. He knows this isn't the best path. But yet he's eating more of them. And then I realized I'm like, Oh, shit, like if I say pink elephant, right? Don't think of a pink elephant. You just thought of a pink elephant. You know, you were marshmallow elephant, Ray. But your brain, it's hard wired unconsciously, to process things visually. It's just kind of one of the tenants of how your brain works. Because it's a great way to store information. Right? So if I asked you if you were not at home, like how tall are the windows in your living room, you could figure it out. But you picture yourself standing in your living room and look at the windows in relation to other things. You're not a computer that says, Oh, it's 11.7 inches off the ground, the main window, whatever. So visually is a very efficient way to work. But when you're braiding your clients, you're just giving them this visual picture all the time. And so once I switched and said, Okay, I don't care how many Oreos you eat, you just have to eat 40 grams of protein before you eat any Oreos. And what we're gonna measure is that we'll still measure how many Oreos to eat but your number one action item is eat more protein. And so we're going to give you education and skill set on that. And that's something that they can then carry forward. So again, you're not saying Oreos are bad, never eat them because that doesn't work either. Right? Your people are well intentioned by saying that but again, you're giving them a visual cue of Oreos all the time. So the if you Oreos now they feel horrible about it and then goes down a whole nother path.

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Dean Guedo 1:00:01

I was gonna say I think a step further like Jeff and I talked about like The Walking thing but like, I almost like you have given up on the fact that the pink elephants I was going to be there and if it's not from you it's going to be on Instagram or, or like on every street corner or every facet. Like there's so many food cues that I'm like, I don't even think I can win this battle anymore. Unless we took you out of the your environment like what Ben does, and we're gonna go stay in Costa Rica in the jungle and I'm gonna feed you like that. That's not realistic. And so it's like, I've taken your cues on a lot of this stuff and kind of layered it into what I do. Not that I'm giving up, but it's that people are exposed to this stuff and can Oreos. Yeah, they're bad. Now they think of Oreos, it's like, so what can you do that has nothing to do with Oreos, and it probably will help, because they might just eat Oreos anyways, that guy probably still eats Oreos.

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Dr. Mike T Nelson 1:00:53

DR. MIKE T NELSON 1:00:33

Yeah, yeah, I think that there is a way out of that loop, though, which is I agree 100% with you. And that's one question that's just bugged the crap out of me, especially going forward with you know, targeting through Facebook, Instagram, like, marketing is going to have so much data coming for this going to be completely personalized on you, if you're using those platforms, that your amygdala, the hard wired, you know, lizard part of your brain, they're going to get really good at figuring out what you want, right? Because we're hardwired to have you know, a certain amount of calories, the faster we can get calories, etc, things that are tastier. So I think the way out is to use your prefrontal cortex, right, the newer part of your brain, the thinking part of your brain, to override your limbic sort of lizard brain, and that that can actually be trained, right. So on the physiologic flexibility, cert, one of the things I like is cold water exposure. So during COVID, I put up a 15.6 gallon freezer filled up for cold water. And I did the experiment of you know, getting it in every day, six to seven days a week for well over a year and a half. And my thought process was, you know, physiologic stuff is a sign that I'm training myself to do something hard that I can do every day, as long as so much hard exercise you can do and other things are beneficial. And my thought was okay, so definitely after a few months, this is gonna get pretty easy. And the funny part was after a year and a half, like the second before you get in, I was never once like, oh yeah, this is gonna be amazing. Like, dammit, this is gonna suck, but I know, I'm going to feel better after I'm doing the right thing, it's going to be a positive, right? So you rationalize your way through it and you still do the thing. So I think the way out is setting things up so that you have to train your prefrontal cortex to override that little lizard part of your brain in developing that as a skill set that I don't think you'll ever get to the point where it won't take a little bit of rationalization, but it will take a lot less over time. And I think that's the only way out of that loop going forward.

J

Jeb Johnston 1:03:03

But theoretically then that kind of falls in with the mindfulness piece because it reorganize the prefrontal cortex so basically what you're saying though with the cold water therapy is lizard or liver King is right yeah the liver King right you've got to me

D

Dean Guedo 1:03:21

and I was like Mike even found it which is I think I have to stop this was like Mike doesn't know anything on Instagram he kind of shows up right like even Mike knows that deliver King is did you send

D

Dr. Mike T Nelson 1:03:30

it to me somebody sent it I think that's the only reason I might have I might have

J

Jeb Johnston 1:03:33

I just I just I tagged Tommy because he was the first person I know that like that knows like of course carnivore Tommy is is down liver King.

D

Dean Guedo 1:03:44

Well, his whole thing is like do hard things that like and it's like so a relay and he's not on water. He does cold water does the reason why I was actually gonna like try to like come like get this to your psychologic psychological fixed, I get the other the other flexibly part of it. So we're talking about leverage point with people and sometimes foods, just not it. Do you think right getting them to do some of the psychological flexibility pieces is almost an inroad to the other thing. And I look at people like doing Wim Hof. They're like, Oh, my life is shit and yada yada. I found Wim Hof. And now my life has changed. And then they did the other thing. So is that like a piece that maybe we're ignoring is nutrition coaches, that might be an inroad to other stuff without even trying?

D

Dr. Mike T Nelson 1:04:29

Yeah, it says to me, you're, you're constantly looking for what are the leverage? Just what are the leverage points? And how can I rig the system and your clients in the clients favor? Right? I mean, I've set people up on I just have myself with a Rubik's stuff. Okay. My goal is I'm going to do one minute on the rower every morning, six days a week when I started, like three years ago, when I had a rower in my garage. It wasn't going anywhere. It wasn't traveling. And people like oh, what's the physiologic significance of one minute like no matter how hard you go, you're not gonna see it. huge benefit, I don't give a shit about that. I just need to get my ass out of bed. And one minute was so short, I couldn't rationalize my way out of it. Right? Oh, bro, I don't have time I can do the rowers in my damn garage, I open the door, I'm not doing a warm up, I'm not going all out I'm going, you know 70 80% The key was to make it so easy. I could not talk my way out of it. And so I think with like physiologic flexibility I was looking at what are the hormetic are not really hormetic. But what are the physiologic homeostatic regulators in your body? Right, so your body has to maintain temperature has to maintain pH has to maintain oxygen, carbon dioxide. To me, those are the leverage points. Because those things are hardwired into your system, your body, absolutely 110% has to hold those things constant. However, we know that they're plastic, they're trainable, you can get better at heat, you can get better at Asana, you can get better at a cold. So we know there's an adaptation period around it. And if we fast forward through time, what happens, right, so my grandmother passed away about a year and a half ago. But when we'd visit her, she was 101. It was freaking, like 75 degrees in there. And you go through, you know, the nursing home and everyone's freezing they have like Afghans and stuff on like, they are losing the ability to regulate their own temperature, right. And you see the same thing happen with you know, with pH o to co2, etc. So to me, then if I want to make you better as an organism, I want to target things are going to have a physiologic response. And then I'm going to do something that's probably going to be so short, you can't really talk your way out of it. It's on the physiologic flexibility. Sir, the one of the things that just take a cold shower, I literally started like 10 seconds, like, yeah, you're probably not going to see a huge physiologic benefit from it. But you're already in the shower, you're already wet. All you have to do is turn it to cold and just sit there for 10 seconds. Right? It's it's so short, that it's hard to talk yourself out of it. And I think once you get better again at running that prefrontal cortex of making that decision, and overriding the limbic system, the hopefully is that what I've seen is that that is a positive transfer to other aspects of your life. Oh, okay. Like you were talking about mindfulness. Oh, okay. Maybe I don't want the birthday cake. And I'm okay with not eating it. Right. I'm not going to spend the next four hours lamenting about how I didn't have birthday cake. Right. I just I made a decision that I'm gonna pass it for now. And I'm okay. Right, I think that that will transfer to other areas. But in fitness

in general, we, we tend to think about, oh, it's just all exercise, it's all food. And you have to go harder down this path, even though it's clearly not working for you. It's like, when did I like try harder ever solve anything? Like never? Like, yeah, you have to do effort, you have to do work. But once you're doing that, is just trying too hard or going to solve everything. Yeah, no.

J Jeb Johnston 1:08:02

But the cool thing is you're kind of backdooring into trying harder. Yeah. Yeah. Because you're exactly doing something hard. That has nothing to do with this thing. But the skills transfer. And so then you're be better adaptable to do something that seems hard.

D Dr. Mike T Nelson 1:08:19

Right? So I asked because, like, viral, not the downwards the upward?

J Jeb Johnston 1:08:25

Spiral, it's additive versus reduction. Like,

D Dean Guedo 1:08:28

right? And that's why I asked cuz like, if we look at gaming at the coachings strategy spectrum, I don't we go anyway, long story short, is everyone kind of fits on there. Like if we look at macros here, and we'll just say full on crazy intuitive eating, not like intuitive. Like, I'm your full on intuitive. And that's the craziest side is like, where do you fall and you kind of use all of it. As I don't know, if you would fall in the middle. I don't know what part you would classify yourself as, but some of it has nothing to do with food. Right? We're talking about food, which is like, what I want a lot of people to realize is there's other ways to do this that don't have to do with your protein timing. But it might all end up at protein timing eventually. It's just, I don't know, it's, it's interesting, because we look at what we've been told. It is Matt, like, I'm using macros, but macros is the strongest message, right? Like cognitive oversight to the max is the one that's kind of ever everyone gets it. calorie deficit, yada, yada, yada. But like no one actually looks at like, if there's a better way to get a calorie deficit that has nothing to do with being crazy about food. Yeah. Cold water tank.

D Dr. Mike T Nelson 1:09:34

What's even more interesting is there's a whole bunch of cross adaptations that we don't understand yet. So one of the ones that's very clear in the literature was they took people they gave them one exposure to cold water immersion. The other group they did not. And they took both those groups like 10 minutes after and they put them in a very hypoxic environment. They put them in an environment with very low OTU and then they rated how hard that felt, right, because if you remove oxygen doesn't feel very good, it's a very stressful stimulus. What they found was the group that had the cold water immersion, reported that the hypoxic environment was not nearly as hard as the other group. And you're thinking, What the hell are you talking

about? Like you're talking about cold water immersion had a positive transfer to hypoxia. And in the study, it did, there's a couple of studies that have replicated that. So cold water immersion is somehow triggering via different molecular factors, how your body is potentially using oxygen or co2, or at least its perception of it. And I think if you're targeting the homeostatic regulators, there's so many cross adaptations yet that we don't quite understand. Right? So cold water example, I got into cold water tank, I think it was like 43 degrees for five minutes, I measured my blood glucose, like literally before just stepping in the tank, I think it was like 87, or 91, somewhere around there. And as I got out, it was 53. It just just dropped. And I've done that a couple of times. So I think there's metabolic adaptations that are going on that we don't have a very good handle on. But in theory, maybe you're better able to regulate these spikes in blood glucose, right? We know that highly variable blood glucose is one of the triggers for hunger, not the only one, but one of them. So maybe over time, by you getting into cold water immersion, we're backdooring your body's ability to get better at blood glucose management, therefore, making your you know, hunger a little bit more even, therefore, making it actually easier for you to make better decisions with nutrition. Right. So to me, that's the fascinating area. And again, those are all hypotheticals and you know, several steps removed. But I think as you get better as an organism, right, maybe you're doing fasted cardio, low intensity, high or aerobic type stuff, in theory, that should increase your body's ability to use fat. And what I've noticed in clients is then for them to do a longer period of fasting is easier than other clients. So again, it doesn't magically solve all your issue, but you're adding a capacity in so that if you purposely take a period of time and restrict calories, it's easier and you don't have to white knuckle, your way through it. The organism itself, and if psychologically, you can't go this direction, can I get it somewhere else by maybe a couple other mechanisms, that I'm still training, the thing I want just a little bit more indirectly. But as a person as an organism, you're still getting better and you're still moving in the right direction. It's just a little bit more kind of indirect and detoured.

D

Dean Guedo 1:12:44

And this is more of models question, because I know you've kind of been on the psychologic like, but you kind of have transferred into this element as well. If you combine both of them, like where your higher, I don't wanna say higher leverage points, but has your I guess, first line of interventions changed since doing Netflix, if that makes sense? Because like, you talk about fasting, almost like the second you go on rungs. It's like, protein fat, like fats and fasting and the neat exercise. Yeah, yeah, yeah. As it changed. Now, with your deep dive into, I guess we'll call the homeostatic stuff, the psychological stuff.

D

Dr. Mike T Nelson 1:13:20

Yeah. It actually hasn't, I would say in how it's organized, it hasn't. But I would say on a per client basis, after doing more of the physiologic flexibility stuff, I actually think for a lot of clients that has a higher leverage, meaning I want you to just take 10 seconds and do a cold shower, or I want you to do 30 seconds of a breathing technique, or a breath hold or super ventilation, it's almost easier to add those things in. And I think the payoff is pretty high for the time that's invested too. And the other part is, whenever they get stuck in one area, I'm going to go to the opposite area, right? So they get stuck, and just eating more micro nutrition. Okay, now you can work on habits, you can work on buying the food and you know, making a veggie shake, and other things like that. But I may table that, and then I may add something else in a

completely different direction. And then I may circle back to that at some point, right? Because to me, I have these lists of, you know, eight interventions and each 16 interventions overall. So I have a wide area that I can pick from and I'm still making them better, I'm still getting them to their end result, just a little bit more of a circuitous path, because again, my bias is that I explained this to a client once that so testing and assessment you're looking for the things they're really good at and the things are really bad at. But that same thing can apply to them as an actual organism. Right. So if you're super strong and you've got the VO two Max in the field now running marathons probably won't be super fun for you, right? But we can train your aerobic system, we can get you better at that, right? So highly advanced athletes are kind of asymmetric to begin with. And that's kind of their sport. Most people, I think, if you look at the qualities, you want to be a little bit more kind of symmetric. So I explained this to a client once of like, Hey, you're missing your aerobic base, your strength is okay, your nutrition is horrible, and then you get protein. And if we mark all these things out, starting from the middle of going out, you look like a really fucked up amoeba. You're pretty good at this one area, and you're missing all these other areas over here. So let's try to get you to look more likely a circular type more human thing where your qualities are more spread out. And again, you're always gonna be somebody symmetric, that's just being human. And they're like, oh, oh, that makes sense. Oh, that's why you want me to do these other things. Yeah, but they're all getting towards that same goal.

D

Dean Guedo 1:16:01

I like that though. Because like, again, most people's interventions is like, you need to fix your diet and being unbeatable this way. And when that doesn't work, you need to find you need to find your why and your inner spirit in right, you need to go to therapy, and like, the only person one or the other, and thinking that that'll work. But like, really, it could just mean like, you don't walk enough or you don't work out, or there's a lot of things that might get them there. But we always tend, I don't wanna say always, but the bigger focus is end up being on that agenda. Jebin I have a, like, a grudge against finding your why but it's it ends up being like, it's just interesting to see the interventions that people go to are always the same ones, as opposed to looking at any other intervention to get this thing and that's why I like we wanted to bring you on because like, there's other things to think about. Other than nutrition, even though foods important and not said that, like the whole fucking CERT is on nutrition.

J

Jeb Johnston 1:16:59

Well, I think what's really interesting about this entire conversation is that I use a lot of these things as acute interventions. So I'm big into like, people having emotional eating episodes, I you know, the the initial thing in dialectal behavior therapist, like stick your face in the bowl of ice water, which is not very applicable for most people. But so I do a cold ice pack on the back of the neck. It helps. I mean, innumerable people are like, this is a game changer. From from you, I RPR. I use as kind of a thing a big for me is like, if someone's commuting home from work before they go in the house, I'm like, do the quick RPR reset and some deep breathing exercises before you go in? But to think of these things as preventative measures, yes, is a whole like, like, I love that idea. And it's like, because if it works in acute intervention, why wouldn't it be something that just works in that same manner? Kind of more? Long term, which I think is it's crazy, like, I'm like, it's like seeing that as as, as a long term, you know, maintenance, almost,

D

Dean Guedo 1:18:09

that's why RPR works, because it's like, cool pick, it just sucks so much. Yeah, like, you'd have to do it. Like, there's no way around it. It's like to get this thing it has to suck. And that's why people like feel good about getting tattoos to that. Like, it's like, it's like meditation afterwards. Like,

J

Jeb Johnston 1:18:24

oh, it is I go into it. Like when I have like my back like it was. I mean, there was times that you just didn't have a choice, because it was just awful.

D

Dr. Mike T Nelson 1:18:32

Oh, yeah. Yeah. And I liked your point, too. And I think of it as Can I, and then house and you guys have talked a lot about this. In a perfect world, could you completely change your environment? And would that have a massive effect on you and your goals? Absolutely. 100% I don't think anyone's gonna argue against that, like, you know, helicopter Minda Benz plays for two weeks and, you know, do whatever awesome. The hard part is that that's just not reality. Right? The reality is, you've got a person going around who can, you know, tweak their environment a little bit, but they're probably going in their same job, they're probably driving the same way. They're in the same car, they're in the same positions, a lot of stuff that they just they can't change at that point. Or if they do change it, it's going to be a long term thing. It's not going to be an acute thing. They're going to change overnight, and probably for good reasons. However, if we make them better as an individual and more robust, anti fragile as an organism, my goal is you can drop them into all sorts of other heinous situations. And they're okay. Oh, I just had to pop tarts and fell into a birthday cake. No great. My blood glucose went up to 130 but it didn't skyrocket to 255. Right. I don't want to do that every day. But it was okay. And I wasn't super hungry and now I'm back to normal again. And so with clients I explained to them that you know, if Maynard James Keenan from tool showed up at my door one morning, and said, Hey, we're in town, come to the show, and we're gonna hang out afterwards till five in the morning. I want to be like, hey, Oh, yeah. Right, I

J

Jeb Johnston 1:20:01

want you to go around.

D

Dr. Mike T Nelson 1:20:04

Yeah, I want to be able to do those extreme things on occasion, with the least amount of side effects possible. I think that can be done. But that takes training and being more prepared for that. Because all those things in life are going to come at you, whether it's office parties, people throwing bagels at you, you know, social events happening, or whatever, that's just part of life. And I think you can be better able to handle those things, and you're just going to be better overall. But I think that big picture, focus sometimes gets lost. And I think that's where

client motivation drops off, too. Because they're like, oh, man, you're telling me I just have to, you know, soggy broccoli and chicken breast, the rest of my life, I gotta bring all my food, every social event, I can't go out on Friday night and, and this really sucks. I don't want to do it, I'm out. And most people don't need to do that.

J Jeb Johnston 1:20:58

Now, this is kind of the explanation to have, like why certain people they probably naturally have some physiological and psychological flexibility. Succeed it like things like Special Forces, Navy SEALs, like and then they go through that training. I mean, think about what BUDS training is freezing cold water, out on the beach, drowning, physical activity, no sleep. And the guys who make it through are people who are probably naturally predisposed to that. But if those are qualities that we can train, it explains why the Jocko willings of the world get to say just just try harder. The David Goggins of the world is trying harder, because they are those guys who can just do that now, because those are

D Dr. Mike T Nelson 1:21:39

those are. Those are the outliers, right? I love those dudes. They're awesome, you know, but if I took the Goggins model, what I have most my clients do that not in a bazillion years. And like, hell yeah, I'm glad he's out there, right, because I think people get motivation from that. Again, those are the outliers, those are showing you what is possible. But if you even back up like I've, you know, trained some people for, you know, Special Forces selection. And the person that makes me the most nervous is the guy who comes in typically a guy, typically a bodybuilder, typically very precise with all their nutrition, they have all their supplements laid out, you know, to have a pretty good physique, their robic base is not the best. And I look at him, I'm like, you're gonna get your ass handed to you. Like, I'm like, your nutrition is actually too good and too perfect. Like, no, this is what I need to do I need to be at this level. I'm like, Do you realize what the job entails? Once you're done? Right? Do you really think you're gonna get your creatine every day and you're going to be able to eat pristine organic, raised? You know, whatever. Like, probably not, I can actually guarantee you not. So let's train you and, quote, dirty up your diet a little bit. See how you can react make you more anti fragile, so that when you get dropped into these situations, like assuming you pass, which you're definitely going to, you're going to be better able to handle it at that point. Music anyone who's done, you know, special forces, stuff like those people are crazy because they're extremely well trained, but they're so adaptable at the same time. Right? It's one of those rare cases where you are hyper specialized, but yet you're still in some ways very much a high level generalist to be able to operate in those particular environments with a particular skill set.

J Jeb Johnston 1:23:30

What's my brother when he went through, he passed first time he ain't Ranger School, everything he was like, he's like, I don't really think was a big deal. And I was like, how do you do it? He's like, Well, I figured they spent too much money on me. They're not gonna kill me. Yeah, that was literally his baseline is like, as long as they don't kill me, I'm good.



D

Dr. Mike T Nelson 1:23:48

Yeah, another thing you know, my guy talked to me to to Ranger School. He's like, I know they have to feed me. Right. So at some point, they're gonna feed me. I just need to go next.

J

Jeb Johnston 1:23:57

Food. Although I remember Thanksgiving one year when he was he was in. I think it's Thanksgiving. He was at Ranger School. And they were like, Alright guys, Thanksgiving dinner. Come on, in everybody. We're gonna have the day you guys can just eat and they just piled food on because they hadn't eaten like two days or more turkey and mashed taters. And then as they were finishing go, and just ran them out till the puked made it up and just Oh, yeah. Just torture.

D

Dr. Mike T Nelson 1:24:22

But think about it. That's exactly. That's a real life scenario right in the middle of nowhere, and you have a sudden get access to food. You're probably gonna eat a lot, right? It's all you know, argument I made was like the Paleo man. Right was paleo man, like, you know, ketogenic or carnivore, it's like, no, he's gonna look at me or she's gonna eat whatever he can find, right? So, if there's no woolly mammoth for two days, you better be good at eating twigs and berries and very food. If you find the honey hive, it's how many times do you want to be stung before you're done eating honey, right, you can't afford to pass out under the honey hive and an insulin induced stupor. cuz then you're dead. But people think that they're gonna like pass up, like, honey. Like, no, there's like all these crazy videos of people in the jungle like scaling, you know, massive trees just to get honey, you're like, holy shit. You're making me nervous watching this. So it's a very prized commodity. It's just our society knows universe. Yeah.

J

Jeb Johnston 1:25:25

Well, I think that's the perfect kind of cap right there, man. Yeah, I don't know, this, like, this definitely went in directions that I wasn't expecting to, but oh, God, cool. Like, there's like, again, the whole like, cuz I love the physiologic flexibility. I think even more so than the metabolic flexibility. I just think it's, it's so fascinating. And it's something that we're seeing Pratt in practice, not a lot in research. And, you know, it's one of those things where it's, again, why I always love your ask your views is because you don't poopoo things that are like, don't have a lot of, you know, mechanistic connection, you're like, hey, if it works, like, I don't really care why, like, let me try it. Let's see what it goes. Let's see what goes. And, um, and I have become, you know, I think it's really easy to be like, well, where's the evidence for this? Where's the evidence that this is the evidence is that it's working with these people, like,

D

Dean Guedo 1:26:26

we're at the point now, and I and we do nutrition. So it's like, don't get this twisted goods, like, nutrition is almost not my highest leverage point at all. It's more physiological. And it's more physical a lot of times because like, Yeah, cuz again, I don't want to say people can eat whatever they want, but they're going to so it's like, I don't know, to me, it's not a high

leverage way it can be. But that's where it's like to the individual. But once you kind of do some of the research and try some of this stuff, there's a lot of merit, obviously, logistics of life and all this stuff. But I guess that's why they take your course to learn kind of where they can include this stuff and what it does, because it's you don't know, too, you know, but then once you know, you have a lot more tools in your toolbox, as opposed to just macros. I know we should all macros but like, if that's the only tool you might have some trouble is kind

J Jeb Johnston 1:27:14

of what you said, you need that tool to Yeah, have a good toolbox.

D Dr. Mike T Nelson 1:27:20

So that's why on the flip side started, I didn't include like there's a whole primer on just basic exercise. Yeah, right. Exercise versus recreation. There's a whole primer on NEET right walking movement, because people are like, Oh, but I thought this is nutrition only. It's like, yeah, it's geared towards nutrition and recovery. But you can't just throw those things out and say that they're not important, but how do you fit them into the system? And where do they fit in is going to be useful?

J Jeb Johnston 1:27:46

And there's a whole part of metabolism that's calories out.

D Dr. Mike T Nelson 1:27:49

So yeah, exactly. People forget, right. And they both regulate each other. Right. And that was the hardest part in the cert was just explain to people that yeah, they both, they don't operate in a vacuum. Right, they both affect each other. And right now we're just better at measuring calories ends, we tend to hyper focus on that. calories out, we're just not good at measuring. But that's probably going to change in the future. But it's not going to be accurate enough still, that it's going to be incredibly practical for every single person. Right? Even if it was even if I could give you a magical device to map everything in and out. You still have all the things you've talked about Jeb and Dean like you still have to still do the same things. Right? So even the technology is not going to save your shoulder now I'll make it worse.

D Dean Guedo 1:28:39

Yeah, if they shut the Internet if the internet shut the I always use that as example. What if the internet shut down all these tech things weren't there? It would make no difference on the we'll call them action steps. You just can't You're just not as accurate and if they're not accurate anyways, it doesn't matter he does and again, but like that's, I always do it doesn't matter

J Jeb Johnston 1:28:57

J Jeb Johnston 1:28:57

for it matters here like on stage bodybuilders because they're the only people that are actually that accurate in their measurements. Like they're not the only there's still a 20% variance right there's the RDA as a 20% variance alone so you know so we see

D Dean Guedo 1:29:12

it's all it's all shit thanks for coming I have a non shameless plug on on your stuff and and included include the other stuff cuz I know we talked about it, but it's more because it all kind of funnels into your philosophy which is what we wanted people to understand so that they could go deeper dive into it because we could not fit any we can fit 1/20 of this into this so if they want more what are they gonna do?

D Dr. Mike T Nelson 1:29:39

Yeah, thank you. The best way is through the newsletter. So just go to Mike T Nelson COMM And scroll down and be ways to get on the newsletter and the waitlist. Once they open. That's the best way to find out. I've got a bunch of content I send out probably five six days a week. If they want more information on the flex diet cert just go to flex diet.com FLEX diet.com. And for the fifth flexor, just go to physiologic flexibility.com. But if they sign up through the newsletter, Mike t nelson.com, they'll get notified of everything and when it opens, and I normally have some fast action bonuses that I only send out to the newsletter only to so newsletters the best place

D Dean Guedo 1:30:24

are we gonna end this because this is maybe our second one. But even when it comes in a timeline, how, what's the what's the natural ending to this, Jeff, I need you to do it. Because you're the you're the voice

J Jeb Johnston 1:30:38

winner that we thank you like, for not just being here to help us out and help all these people out again, leverage points, the more coaches that we get out there, the more people that can see the more people they can help. And, you know, again, you know, not we can't overstate the, the influence you've had on both of us in our careers. And, you know, that's, that's helping us to help other people and, you know, that it's, it's a, it's, again, people we like to pitch and make fun of the industry in a lot of ways and but but there there is we've had so many great relationships come out of this and so many meaningful friendships. And you know, you're at the top of that list. So we thank you so much. And everybody, you know, obviously, we see a lot of importance in this this content. So if it's something that you guys seek to learn more about, just go to med flex, and again, this physiologic flexibility thing is super cool. And that's, that's really kind of blowing my mind right now. So I definitely wanna dig more into that.

D Dr. Mike T Nelson 1:31:40



Cool. Yeah, thank you guys so much for all the kind words and for having me on here. Really appreciate it. It's been fun. Enjoyed it. Thank you so much for listening to this podcast. Big thanks to Dean and Judd. And all Kyle, Matt, everyone over at compound performance for allowing me to give you this interview that is included in their mentorship. Right here for free, which is great. Again, I don't receive any compensation for promoting their mentorship. But I know it's got a lot of great information. So check out the link below if you've got time, or check out compound performance. For more information. Thank you so much. As always, if you want to support the podcast, we would love it. You can hit subscribe, you can leave us comments and any questions you have. Please get in touch future guests. Anything you want to see. Let me know. Thank you so much. Really appreciate it. Talk to you all next week.