

Welcome back to the Flex Diet Podcast. I'm your host, Dr. Mike T. Nelson. And on the podcast we talk about. All things to increase performance in the gym and on the field. I add in muscle and a better body composition. All in a flexible approach without destroying your health in the process. Today on the program. We've got my good buddy, Dr. Pat Davidson.

Who I have not talked to in a while. So it was great to catch up with him. Originally met pat at Dr. Ben house's place down. In Costa Rica. Man probably five years ago now. Was even down there when Dr. Pat had all of us. Do his horrible training thing. He called the Cajun. You can look that up.

Online, if you want to find it, but it's, I think five or six compound exercises done back to back for relatively high And you've got a rest period of a couple of minutes and then you do another round. So we did that for testing. Down in Costa Rica for three rounds. And. It was completely hideous, but fun times with pat and I always enjoy talking to him. And today we talked all about primarily fat loss and some muscle gain.

How would you set that up for your programming and your nutrition at a high level? Talked about the philosophy of it. And even a little bit into some of the pros and cons of discussing principles versus mechanisms. So I really enjoyed this chat. And it is brought to you by the Flex Diet Certification. So if you want to learn all about nutrition and recovery interventions to increase performance, muscle, better body composition.

And your health at the same time in a complete system. Check out the Flex Diet certification. So as a system, I talk a lot about in the flex diet cert about metabolic flexibility and flexible dieting. What is the big picture concept? Because as we talk about in this interview with Dr. Pat. If you understand that, that will allow you to make a fine scale differences and changes to your program and your nutrition. And then in the flex diet cert, we do go in depth into each one of the aid interventions.

Ranging from protein to carbohydrates, to neat, to sleep micro nutrition and more. And then I helped translate that into 40 specific action items that you can do. So at the end of the day, you understand the big picture and the concepts, how to apply them. And you've gotten specific knowledge within each area. And then you've got the application started off for you also.

We also have expert interviews from everyone from Dr. Stu Phillips and Dr. Jose Antonio talking about protein. Dr. Mike Ormsby, Dr. Eric Helms, Dr. Dan. Partied Dr. Steven Gueyanet and many others in there. So go to flexdiet.com for

all the information. Right now, it is on a wait list and you can put your name in there and you will be the first to.

Be notified. Once it's opening again. So go to flexdiet.com for all the information. And enjoy this interview with Dr. Pat. Davidson.

[00:03:55] **Dr Mike T Nelson:** . Welcome back to the Flex Diet Podcast. I'm here with my buddy, Dr. Pat Davidson. How's it going, man?

[00:04:01] **Dr Pat Davidson:** I'm doing right. As I was mentioning to you I'm a little under the weather. I don't know what hit me, but, when you've got a two year old there's never, it's like you're just pretty much always sick with them.

, but this one was a little different, like I just I got flattened by this. I'm glad we didn't do this yesterday, . Cause that was a mess. So if I'm coughing or super nasally in this, my apologies. But Yeah, like it's, And you know what, like I'm at the very end. I finished a a very long extended fat loss diet yesterday.

And Congrats. You I would imagine that my immune system was compromised by the end of it because it's been a lot of training volume and depreciating calories from across 18 weeks. And and that's gotta contribute to just getting flattened by something as opposed to eh, I think I'm a little bit under the weather, but I'll, ride this out,

[00:04:52] **Dr Mike T Nelson:** Yeah. Have you noticed that too, where if you're at a period of high stress, I used to notice this a lot more when I was traveling and teaching. I'd sometimes go overseas, I'd do three, four days in a row and you're like, Yeah, I made it all the way through. I didn't lose my voice. Everything is great.

And then you get home and you. Oh my God, I feel so horrible. But it doesn't happen during the high stress period. It happens right. As you get through that, you oh yeah, .

[00:05:18] **Dr Pat Davidson:** Yeah. I think there's a thing that you're putting your foot down on that sympathetic gas pedal and you're mobilizing systems and all that kind of stuff but once you ease off of it it's like, Yeah.

Yeah. I'm not, I don't the physiology who the hell knows in some ways, but Yeah, it is. When you it's almost like the system knows okay, we don't have to be on full go right now. It's okay to be sick, yeah. But the, I did a stretch over six weeks of three seminars, one every two weeks.

And it was Texas, Vancouver, and LA. Oh, and that was brutal. Like I, I was, yeah, I was speaking recently with Angus Bradley in Australia as well, and he did a seminar series in Europe and, like it, the fatigue that you experience from doing the travel and the teaching with those weekends is different.

I get done with these things and it's I fly into a place Friday teach Saturday, Sunday crash at night, Sunday, fly back Monday morning, and then like all of Monday just feels like a hangover and so does Tuesday. It's like a very flat kind of feeling and it's very challenging.

I, I think in, in working with clients in New York over the years too, like travel seems to always be the thing that gets them in trouble from like a food management perspective, a weight gain perspective, all that stuff. And I was pretty diligent about not overeating on, on, on these travel experiences because like I said, I was following a fat loss diet and I, it was important to me.

I didn't want that to be the thing that kind of interrupted everything and messed everything up. So it, but again, it's like, it's stressful to be in a deficit. It's stressful to travel, it's stressful to be on for two full straight days teaching. And and then that absolute flat line feeling after the fact is it's something I've gotten used to, but it's very difficult to try to train through, it's very difficult to try to push your physiology through.

And yeah, I think that if you're dealing with athletes that have to travel a lot or high profile clients that have to travel, it's. That's probably gonna be the biggest thing that you have to manage is travel fatigue, time zone changes, sleeping in different places, interrupted sleep, odd food based things with airports and restaurants and blah, blah, blah, blah, blah.

It's a lot to manage.

[00:07:43] **Dr Mike T Nelson:** Yeah. I realize the same thing. I had, before Covid, I sat down, my wife was like, Hey, I know we've been busy and traveling and gone a lot. What's the longest stretch you'd been home for in a row? And for three years, The longest time I was home in a row was three and a half weeks

And you look back and at the time you're like, I don't know, whatever. It just becomes your normal, you don't think a lot about it. And then I also realized too towards the end that if I was teaching for more than two days in a row, and it was either just me or one other person where you're, you're doing a lot of it.

You're not just, showing up on a panel or something like that. That I would try to get there a day early, if at all possible. Doesn't always work. And the day after, I would try to find like a float tank or I would try to leave like on Tuesday and just consider Monday afternoon just to wash doing client program updates, sleep in Monday morning, go do a float Sunday night, just try to give myself a little bit of time to decompress.

Cuz I've done that before where Monday morning your flight's at fricking 5:00 AM and you're getting up and you're already on the plane. You're like, Where am I? What's going on? ?

[00:08:51] **Dr Pat Davidson:** It's no joke. That's a crazy, what you just said is nuts too. I don't know if people understand that, but that's wild.

I really I don't, I think that for me, like my fitness and everything else I don't think I had realized, like it had gotten to a place that wasn't great for me prior to Covid. And Covid really gave me an opportunity to. Not travel and to have a lot of consistency and to train super hard.

And I made really good changes in fitness during covid and I felt a lot better, like from a physical standpoint in terms of health and performance. It, it was really eye opening to me from that perspective, like how much of a a negative for me the travel element was.

And yeah, it's like I, I have that awareness now going forward and at the very least, I wouldn't say that the take home for me is like never travel. That's not at all. Yeah. It's just Hey, be aware of how much I can handle. And also don't let it be a 100% disaster. Like except the fact that it's not easy.

It's not gonna be perfect, but don't let it like blow up like a nuclear bomb. Just allow it to be a 50% shit show rather than an absolute avalanche of crap. And I think that is that's much more psychologically manageable because oftentimes these things of come out in the wash.

If you're just consistent, when you get back and you get back into whatever routine and training habits and program you're following you just, you don't wanna overreact. I've had many overreaction lessons in my life. I am an overreactive person. And and that emotional overreaction has probably been the main causer of problems.

Issues that I've created for myself. And and it's just I'm grateful for that because it's learning, it really is just learning and then just seeing the subtleties of those

things. Like I even when I'm not making enormous emotional overreactions to big picture topics, I make smaller ones consistently.

And the more that I'm able to tease those things out, even on what I'm talking about like small changes in body weight or training numbers, or, Oh my God, my squat went down by 10 pounds. It's okay. It's don't overreact to these things. Just do the next thing that's appropriate.

And if you just allow that to happen consistently, you're probably gonna be just fine within a couple of days to a week. Just don't go over, don't let, don't don't let compounding errors. Create much bigger problems, like one error not so bad. Compounding error is big problem.

[00:11:33] **Dr Mike T Nelson:** Yeah. Did you have any sort of rules for yourself when you were traveling?

I had this weird rule that if a hotel or a place had a rowing machine within, walking distance, I had to sit on the rowing machine as soon as I got into town for some period of time, or within 24 hours. And so then I would almost look for hotels that secretly didn't have anything because then I wouldn't have to do anything.

[00:11:59] **Dr Pat Davidson:** Don't have anything like that. No I usually would. I, I try to get an Airbnb for the most part. Yeah. And something with a kitchen and it's not like I was doing much cooking, but even, it just that I like, I don't like being in hotel rooms. I don't know why I just find them.

It's different to be. Bad mentally. For me, I prefer something that's more of an apartment or a house feel to it. Yeah, I don't, there's just for me, like I, I don't know what it is exactly, but like hotel room at night alone just puts me in a bad psychological place. But that's really about it from that kind of a

[00:12:35] **Dr Mike T Nelson:** perspective.

Yeah. And you mentioned about being in a caloric deficit too. I realized that too for a while. I was like, Oh, I'm just gonna get significantly leaner and you're traveling, you own flights and you're, after trying that for about six months I honestly just gave up. I'm like, Yeah, if I just maintain white stability and go up a little bit, I'm okay.

Cause I think you have to sit back and go what is my higher priority? What am I trying to do here? I can change my body comp once I stop traveling, if I decide

to turn down other opportunities or whatever. But, The reality was I chose all of this so it was all completely a hundred percent self-imposed.

And it was like, do I wanna increase the amount of stress and have it be harder to recover, et cetera. And then it sneaky over time, cuz similar to you, like when Covid happened, I was like, Oh, okay, might as well do some aerobic based training. I can train all the time. And you forget how nice it is to wake up in the same bed every day.

You're like, Oh my gosh, my HRV is better, my recovery's better. Wow. I can actually cut calories and my training doesn't completely implode. I don't feel like complete utter dog crap after three days. Oh, this is nice. .

[00:13:45] **Dr Pat Davidson:** Yeah. And I think like for me, like I'll decide that I'm in a specific phase, a focal phase, and over the last.

It's been 18 weeks and I had two fat loss phases and one maintenance phase in the middle. Each fat loss phase was eight weeks. The first one was very easy. It was like, I had come off of weight gain stuff in the winter. And it was like the goal was 11 pounds per fat loss phase to drop.

The first one was like zero effort. I wasn't hungry. The weight fell off, no problem. And so I was, normally I would do a longer maintenance phase between fat loss phases, but there was almost no psychological toll from the first one. So I was like, You know what? I'm just gonna jump back into it.

I'm gonna put my foot on the gas battle two weeks and then boom right back into it. And that's what I did. And the second one was not bad for probably the first four weeks, and then the last four weeks was much more challenging. But in terms of travel, it's I'm in this focal phase and I don't have my food scale with me.

I don't have a grocery store like all the time. Like I do have to eat airport food and restaurant food and whatever the hell is gonna be at the seminar. I'm just gonna undershoot, Generally, like when I'm doing these things, my neat is up anyways. I'm teaching and talking and standing and walking around the room and things like that.

And I just when my activity, I have a pretty strong hunger suppressant thing with activity. Nice. Like, when I'm not active, I'm starving. When I'm active, it really brings my appetite down. So it was kinda like, you know what, I'm just

gonna it's all estimation. It's not, I didn't have a scale to weigh myself, any of those tools.

Of measurement, but it's ah, I'm just gonna go for feel and I'm gonna really undershoot. And that's what I did on this. And it, the second one I was aggressive with this fat loss eight weeks, and I dropped 17 and a half pounds in the eight weeks. Oh geez. Yeah. I'm I hit the end of that.

It was 33 pounds across 18 weeks that I dropped. Wow. So it's I'm at the end of the psychological tolerance and today was the first morning of going back to maintenance calories. And it was a pretty good bump from 90 grams of carbs increase. The first meal of the day I had was very satiating, and I feel pretty remember looking at the planned last night and being like, Oh my God, I'm

[00:16:14] **Dr Mike T Nelson:** so happy this morning to come.

Just want to go to bed and wake up and eat carbs. . Yeah.

[00:16:20] **Dr Pat Davidson:** Seriously. Oh my God, this is such a wonderful thing I'm staring at tomorrow. But that's I yeah, it was very much like a psychological stress point by the end of I'm hungry all the time and I cannot wait to get to this maintenance thing.

And but now that I'm here, it's and I'll tell you like being sick on the last couple of days too, it's just like miserable. Oh my God. . But yeah, usually if it is a focal phase, I will undershoot it because it's like I'm gonna really be angry at myself if I let this derail me from what my goals are.

I'm gonna be, I'm gonna I'm a a grudge holder and a presenter and more for my, myself than even other people. And so if I allow myself to be like, perpetually pissed at myself for my own errors, like I, I'll look back and analyze things from years ago and just be like, I can't believe I did that.

Idiot. Which probably is like a double edge sword in a lot of ways from like a personality trait standpoint. But it's I do know that about myself, so I try to limit my internal critic. From running wild over behaviors that I deem to be erroneous.

[00:17:33] **Dr Mike T Nelson:** How much of the setting up, especially the fat loss phase, do you think is related to your personality?

Haven't had the luxury of knowing you off and on for several years now. If you came to me and said, I'm gonna do this really slow, lose a quarter pound to week fat loss thing, I would wonder what happened to you. So the fact that it was more aggressive than not to me, like fits your personality.

I think if you would've done something different, you would've been successful, but probably still unhappy at the end.

[00:18:05] **Dr Pat Davidson:** Possibly. It like, I actually, I didn't intend to drop as much as I did. It was, I think that what took place I followed the Renaissance periodization diet app.

Nice. And so it has built in recommendations, and I literally just boom, I just went with the most standard recommendation, but I lost more than what it projected. And I think that's partly due to the fact that my training volume progressed across everything. And it's more, it's been like a track program that I've been following.

So a lot of running and that running volume and the number of, you know, it's funny, it's it's, it, I think that when you do running and a track program with repeat sprints, you get a lot of what is actually like non-exercise activity in the training sessions, oddly. Sure. What I mean by that is that you run down the shoot and then you have to walk back to the start line, And the more running that you do, the more you have to walk back to the start line.

And so you just the total amount of movement that I was doing just kept increasing. And and I think that even with the calories staying the same. And towards the end, like I said I got aggressive with it because I was psychologically handling it pretty well.

And then over the it, it recommended not to decrease calories. And I was like, Eh, I'm gonna go for it. And and that made the last chunk hard. But I got through it. Where I'm going with this is that I, for the most part, I just followed what was prescribed because I think that I have the tendency to be overly aggressive and knowing that about myself, I try to take most of my decision making out of my own hands.

, because it's again, like I can be poked and prodded and have emotional responses and then I'm like, Oh, I wish I didn't do that. In hindsight, that was a really bad idea, . But I think that, again, some of the lessons that I've learning which, you shouldn't have to because I think that it's, I think research supported

stuff from the perspective of like how big just total activity is, especially non-exercise stuff.

But I think where I'm just seeing where it can get built into your training program, like in, in areas that don't initially pop for it. If you're just increasing weight room volume, it's not like it doesn't increase the number of steps that you take or those kinds of things, but if you increase track volume, it's like you just walked in additional like 600 meters compared to the last.

Training session, like that's actually like a pretty big increase and it just increases, increases and increases over the course of a block. It's a bit like the case study with the guy that just kept adding weight to the weight vest. And it made the con the diet prep a lot easier because the NEAT just kept increasing or it stayed the same really, as opposed to with weight loss, it just decreases with greater efficiency and movement.

So I, I just, I think that was a big factor for me with this was increasing total movement volume across a fat loss block and just witnessing how dramatic of a driver on actual weight change and body composition change that played into it, but not really understanding what I had done ahead of time.

Witnessing it in live time, being like, I, and I'll tell you, like I, I had hurt my hamstring and I had to sort of transition to indoor work to replace outdoor work. And it was like, in the beginning it was like stalling from the, from a weight change perspective. And it was kinda like, Why?

What's the difference? What's the difference? Because the work to rest was about the same, The intensity was about the same. And it was like, Oh, I'm not walking back to the start line after these reps because it's a bike that just sits there. I need to actually walk to make up the difference in the gym.

So I would just walk the rest times and boom, as soon as I started doing that again, like the sled of weight chain change just kept sliding in the favorable direction.

[00:22:25] **Dr Mike T Nelson:** No, I think that's a. A huge lesson, one that probably took me far too long to learn is that early on with clients, I think I was probably too aggressive with volume in the gym and not aggressive enough with neat outside the gym.

And then this is like even before, watches to measure steps real easy. So I used to buy like in bulk pedometers and give 'em to clients because they would

always get lost. And then I bought those little dopey little straps to put on the speedometer so that it wouldn't get lost. But it was a disaster.

But once I realized, I'm like, Oh, maybe lower intensity work will be better than trying to ramp up their volume as I'm cutting their calories. Everything got easier at that point.

[00:23:09] **Dr Pat Davidson:** Yeah. My weight room stuff has stayed the same for the last 20 weeks. It's been six sets per muscle group.

With half of those sets being isolation movements that aren't that stressful. And I feel as though it's just maintained strength, which is all I could have hoped for during the course of that much weight loss in. And like the movements that have decreased have been the squat and the overhead press, but those are tough ones I feel like, to maintain with that.

But the, every other movement is basically the same in terms of load and reps. The squat also you just, you get yourself under the weight. And being that like, in much of a deficit, it's almost like I feel wobbly and lightheaded and , just please someone get this thing off of me

But yeah it's I think that, and I also saw that, I, I think Brad, Schoenfeld popularized some. Meta-analysis stuff, showing that you really don't need that much volume to maintain muscle mass. Yeah. Under really almost any circumstances I just, I tried to keep the intensity high for all lifting with very low volume stuff, a really like a qu like a quarter to slightly less than a quarter of what seems to be developmental volume for me.

And again, like the stuff that increased for me, like this was a running focused training phase. So that volume was increasing dramatically across it. But it's, I think that the unappreciated stuff is the low intensity movement that occurs from just getting things like steps in or any other sort of like non sedentary lifestyle behavior factors.

Again, like this is stuff that's coming out of the research world is like clearly very important, but until you really feature it in your own life and try to maneuver with it, you don't realize the impact that it actually brings.

[00:25:11] **Dr Mike T Nelson:** Yeah. And I think there's a danger of looking almost too much at numbers sometime.

I've had a couple of clients over the past couple years where on paper everything if you just gave me their numbers, you're like, Huh, everything looks great. You should be losing weight. And it's Huh, you're not. But then when you looked into the data, The thing that jumped out at me was just a whole food protein feedings.

Like their protein numbers were good, but a lot of it was from shakes or split out over the day, or from smaller amounts and that type of thing. And we went to 30 or 40 grams of some type of meat, three to four times a day, and then just bumped up step count and just tried to just track it.

Nothing crazy. Starting at like 7,000 steps, going up from there. It wasn't like they had to get 20,000 steps, just those two simple things in both cases, like everything started moving again. , so I think sometimes as trainers you, we wanna do all these wholesale changes and be like, Oh, you gotta just, dramatically increase your lifting volume.

And it's no. It might be just some smaller tweaks that have a lot more leverage than what we think they would by looking at the paper.

[00:26:23] **Dr Pat Davidson:** Yeah. And look first of all, I think it's always a math equation. Never blame your math, blame yourself for not understanding all of the data points. Yeah, a hundred percent.

You're missing something dramatic if you say you're doing everything correct mathematically and it's not working. No. It will work. It will always work. , there's no way around that. And two, like if you are in a deficit or a maintenance phase, do not increase your lifting volume.

There's absolutely no point in doing that. It's the dumbest thing you could possibly do. You're you don't have the supplies, like if you, the only reason increase lifting volume is to grow muscle. And unless you I suppose if you're an absolute rank amateur and a total beginner, you could grow some muscle tissue, even maybe in a deficit or maintenance.

Yeah. But if you've got any level of experience, you're not gonna grow anything unless you're in a surplus. So just keep your lifting volume as low as you possibly can to maintain tissue unless you're in a surplus. And then if you're in a surplus, progressively overload, you're lifting volume over time in a positive direction and grow.

But understand like what nutritional phase you're in because you're just you're shoveling shit against the tide if you're trying to increase lifting volume without being in a surplus. I think other fitness qualities can improve if you're in maintenance calories or deficit calories, particularly if you're not an elite athlete in that domain.

Like I think aerobic fitness can dramatically improve for a lot of people. Yeah. While they're in a deficit. Just looking at like even a p k pathways and AGE based information like mitochondrial biogenesis can really come to life when someone's in a deficit. But, as far as trying to increase tissue that's a fools errand for non surplus conditions.

[00:28:18] **Dr Mike T Nelson:** Yeah. And that's similar to how I program. Especially if someone looks and we're like, eh, you probably know a lot more just aerobic based level cuz it's just really bad and you haven't done any of it and you wanna get a little bit better body comp. It's great, let's just start off with a more aerobic based program.

We're still gonna do some heavy lifting, but like you said, it's, couple sessions exposure to 85% of one RM and above just to, keep some tissue on there, have your body be like, Oh yeah, we don't wanna get rid of all this muscle tissue cuz this guy's gonna, go lift some heavy stuff once in a while.

And I found that works pretty good. I've also noticed though, as if I increase the amount of like true high intensity work in that program, like that'll almost always implode it. So I have to be careful on, on that end with it too. So I dunno if you've noticed similar things. Yeah,

[00:29:06] **Dr Pat Davidson:** I mean I think that it's exercise or muscle group specific from a high intensity thing.

I look at it like, how many efforts of close to failure work can you give me? And sure, like if it's a higher percent, one rep max, I might bias a little bit more towards fast twitch fibers. And if it's a lower percent, I might bias more towards slow twitch fibers, but it's probably more of a mixed bag wash kind of a thing.

So I'm just like, how many good efforts, really good efforts can I get, and it's, again, it's goal dependent. If I'm just trying to hold onto tissue I probably just need a few good efforts as enough of a threat of do not lose this stuff. You need it. Or, this is, this stimulus is gonna keep coming, this threat is not going anywhere in your life.

But I think that when you're in a strong deficit and you're getting towards the end of it in particular you can like your focus and your aggression and some of those things can wane. And so really heavy stuff can just be like a bit of a danger problem in some ways. Like versus lighter, you can still be in control and try to mentally work through it and get to a point of near failure with a little bit more reps as opposed to like really making these poor tissues and joints and everything else, which are already like, under a lot of duress from the caloric deficit.

Do you really want them to have to hold up a tremendous amount of load at that point and be threatened from that? Like really, like tension is on such a wide spectrum, it seems 30 to 85% is enough tension to be able to check that box. And now it's relative effort of or relative intensity.

Take it, just take it close to failure, and I think that when you're feeling it, when you're confident, when you're emotional state and your psychological state or you're in a great place. Yeah. You can play at the really high end that percent intensity spectrum.

But look like if you're like, Oh my God, like I, I feel terrible because , I'm in this crazy deficit. But it's kind, you can mentally be like, look like I'm gonna give a great effort here. I don't care. I'm gonna go for it. But I think you're setting yourself up for success by biasing it a little lighter and allowing yourself to just, work a little bit more on the rep side of the spectrum.

Cuz it's it's gonna give you the. It's gonna check the appropriate stimuli boxes for tissue maintenance or acquisition without unnecessary specific stress of tension.

[00:31:51] **Dr Mike T Nelson:** Yeah, I think of it as on both ends. If you're in caloric surplus or not, the kind of surfing the end of that spectrum.

If you go in and your programmed to do like a triple at 85% of your one rep max and you're at 75% of your 1RM and rep two just looks like it's slow as molasses odds are, you're probably not gonna hit that programmed thing, right? Yeah. So then you have to make a decision of, okay, I wanna go heavy enough.

I'm still getting the stimulus, but I don't wanna be an idiot on top of it and try to get just 10% more, which in the big picture is probably not gonna make any difference at all. Your risk reward starts getting really skewed on that edge again.

[00:32:32] **Dr Pat Davidson:** Yeah. I for me, during this whole phase, it's a lift session will be like, here's a movement.

You get two sets and the rep range is six to 20 and the reps in reserve is one to two. That's of how I'll program it. So it's see how you feel today. Pick something that seems reasonable and then you get two shots to go get it. And it's just estimating it based on reps and reserve.

To me it's like percentages during these significant body weight change periods. Like percent of what? Yeah. Five weeks ago, 10 weeks ago. Let's just see like where we're at today and that big enough range of six to 20. It's it's probably going, it's def, I it's definitely, if you're able to get six, it's a percentage that's sub 85%, which is in the tension window that's appropriate for tissue based.

It's it's not neurological training as a focus, it's tissue based training as a focus. So it's inside the appropriate tissue tension window for checking that box. And again, it's look, it's six to 20, but it could go beyond 20. In reality, it's more like just as a guideline.

But pro under six during a deficit for me is like, why would you do that? Why would you ever do and almost in general, from a hypertrophy standpoint, why would you ever do that? It just doesn't make any sense. It's. You're gonna get the same hypertrophy stimulus from lighter weights, but you're not going to get the joint problems that you're gonna get from heavier weights.

Always minimize the side effects and pursue the primary effects with whatever you're doing. And teasing out the drivers of side effect, I think is the learning process. Like a lot of people can get jacked, but can you get jacked and minimize the damage along the way?

That's the the and look like probably just building a bigger ultimate window of how far you can push your adaptations by minimizing problems and side effects as.

[00:34:40] **Dr Mike T Nelson:** Yeah. Do you think there's an argument to be made of doing in, let's say, a caloric surplus, some lower rep training, like three to five reps to push up the overall strength levels, so therefore when you're doing a percentage of work, it's at a higher level?

[00:34:59] **Dr Pat Davidson:** Not really. I think that's going to, it's always what is the adaptation that results from this stimuli? And when you're in that level of intensity, the primary tissue that's going to be target is going to be the nervous

system. So it's a great way for rate coding and synchronization and recruitment, the big three neurological elements.

But in terms of what seems to be the understanding of the drivers of hypertrophy 85%. Is considered to be as the heaviest that you'd ever want to go again, because going beyond that and having a good enough level of volume you're much more likely to experience joint pain.

Yeah. And if you're experiencing joint pain now your ability to train appropriately is going to be really decreased. And again, connective tissue and joint pain problems have a different, healing time period as compared to muscle soreness, joints are gonna take longer to recover and heal, mainly due to just differences in hemodynamics and blood flow, getting to those areas as compared to muscle damage.

I like and look like not always. This is like more of a probability thing. Like I'm sure that there's individual examples of people being like, Look, I do, I respond very well to high intensity, low volume stuff. And it's congratulations, shoot. And equals one we all know and equals one is the thing.

But from the standpoint of population wide information and look like if you play it out over long enough time, course most people, even the n is and equals one high intensity responders, you'll probably, revert back to the mean of the population. If you play it out long enough. It's there's, it doesn't seem as though it's worth it, from like the, the, I look at there's a number of things that can curtail your long term development.

Joint pain and any, skeletal pain problem is probably the most likely one that's going to decrease career length for people that are looking to train for elite level performance in strength and aesthetic based sports involving resistance training. The other things that can really get in the way are like getting sick, getting some kind of muscle injury is like injury, sickness.

And of course, like emotional breakdown for people. Like a lot of people can't emotionally or psychologically handle the long term toll of it. It's like not everybody's cut out to live a disciplined life of Body composition or strength performance life for decades. But yeah again, like there's, so it doesn't benefit you ultimately.

I suppose if I was gonna go into guess work on a physiological level, which I generally try not to do because I feel like this is where people get themselves into trouble, from this mechanistic mumbo jumbo that they try to apply. You

could make the argument that the only way to make a tissue adapt is that the tissue has to be recruited and fatigued.

When it's when tissue is recruited and fatigued, it will be forced to respond through adaptation so that the same level of threat is no longer threatening. And from the perspective of, the, like tissue, like muscle fiber types, there's the spectrum of slowest, of the slow to fastest of the fast.

And in order to be able to recruit the fastest of the fast fibers you need to be able to like that's going to be force dependent. Like force is the variable that is associated with fiber recruitment. And, force is mass times acceleration. Acceleration is gravity, and mass is going to be weight on the bar.

So in theory, the only way to recruit the fastest of the fast fibers is through highest end mass on the implement that you're moving. And once a fiber is recruited, it's easier to re-recruit the same fiber. So it's almost like I utilize my really heavy training as like a neurological recruitment cheat code to be able to now get all of the fast fibers on board with movements that I'm going to be performing.

And my fast fibers seem to have a greater growth potential compared to my slow fibers. So if I was someone who had not been able to recruit available fast fibers and I can unlock them, I'm unlocking the biggest, baddest most growth prone fibers possible. Then the question is simply what percentage do I really need to get up to in order to be able to unlock those fastest of the fast fibers?

And I would be lying if I said, Oh, I have this answer. You know what I mean? I don't have that answer. I don't know if anybody has that answer. I would say that there's a lot of conflicting weird things out there, such as blood flow restricted training that, you can use incredibly light weights and still manage to be able to create enough of a stimuli that's able to seemingly create adaptations in large swaths of fiber types across the board.

I, again, am I'm looking at it from a probability standpoint and a risk management standpoint from a really long term perspective. And my best recommendation based on those elements going into my decision making thought process is avoid really end tail intensities. If your goal is tissue promotion.

Just simply the big rocks to hit are probably psychologically being able to get yourself to really understand what close to zero r i r really is. That's going to be

more important is just can you get yourself close to failure? Do you really understand what that is?

I think that a lot of beginners get that wrong. Like they think they're done. It's like you're not even close. Once you are able to consistently do that, like all your efforts have to be substantial efforts. Now it's a question of how many of those efforts can you compile in sequenced progressively overloaded phases of training.

That, that allow for super compensation with recovery elements mixed in. That to me is a bigger rock in comparison to the intensity rock, which is one that, that just has a wide spectrum that seems to be able to be good enough. So it's a, I do think it's a very difficult question though, and I think you're gonna have a lot of people that have had a lot of success with a lot of different approaches to that particular question.

And so my confidence in my answer is not very high to tell you the truth. It's again, more of a I feel like an accountant in answering this Yeah, you could do it that way. , but your chances of going bust are a little bit higher from a joint perspective. And I don't know too many people that are willing to train through joint pain for decades.

I do know some people, but , you have to be a special breed for

[00:42:56] **Dr Mike T Nelson:** that. Yeah. You think hypertrophy is just, I've often thought it's this, almost this weird quote unquote side effect. It appears that there's so many roads that lead to it where ultimate strength or percent, moving the heaviest load possible for one rep.

It seems like we just have a lot. More idea of what goes into that and more confidence in programming for something like that where hypertrophy it seems like, Nick Bird's stuff, 30% of 1RM, we see high trophy, enough volume. At 85% of 1RM we see hypertrophy. And these are even in, more advanced people.

These are not just newbies lifting soup cans for the first time.

[00:43:36] **Dr Pat Davidson:** Yeah. It's amazing because I think that if you really look at the best science based people in the fitness industry, it's like they're probably in the aerobics camps and in the hypertrophy camps. Like I think that there's been a there's pretty good researchers that I think are good scientists in those areas.

There's been a lot of science that's gone into hypertrophy. And the incredible thing is how we haven't gotten that far in

[00:44:04] **Dr Mike T Nelson:** understanding it.

[00:44:05] **Dr Pat Davidson:** I dunno, , it hasn't been that long since we were like oh, the hormone hypothesis. That was a big flop. Yeah. When I was in my master's program and PhD program, everything was hormone based in terms of the physiology Kramer stuff.

Yeah. It was, there was Kramer looking at at Insulin, Yeah. IGF and Nle looking at growth hormone. Yeah. And it was they work together a lot of times and it was like, Hey, we have to do these approximate 10 RM sets with short rest.

And those create this biggest response of growth hormone. IGF response, cortisol response, and then it was Oh, actually guys are just measuring a stress response. Yeah. And it's not remotely enough of a time scale under the curve to be able to explain anything. And and the reason steroids work is because you just have this very long, constant level of increased hormonal status, which is not the case for the exercise response hormone thing.

And so it was like, Oh man, did I just waste all of that time with learning about these for? And no, probably not. There's probably something important about the stress response that we see in, in relation to that kind of resistance training. I don't think we know what it is at this point But it's probably associated with something, yeah. . But in terms of hypertrophy, no, it's like that the acute hormonal responses to exercise are meaningless. But man, did I have to learn about those things. , during my education and it was difficult for me to be presented with information that was like, Hey, by the way, everything that you learned about that seemed to be said that was important.

It's not important. It was like, Oh God. So what is important? And, you get into these discussions on mTOR the a K T pathway, is it the seesaw thing that I've heard you talk about? And it's how are we evaluating this stuff? What, what really is, I feel like for every molecular explanation that you get there's like this circuitous pathway with contingency plans and escape clauses and secondary it's to me I, I try not to program off of physiology because I feel like the more that you learn physiology, the more you realize that like these systems are, contextual in, they're very contextual.

It's like it's responding in this way right now because of 18 different factors, and it's not the only pathway that can be utilized. So it's, I think it's tricky because it's you have to know enough physiology to work around it. just try to, I just work with. As much of an easy numerical basis as I possibly can, like cleaner lines.

Like I never say Oh, this is a glycolytic protocol. Yeah. Or this is a aerobic protocol. It's No, here's just like the, here's the distance, or here's the load. Here's the time course that this is going to be done. Here's the rep range that this is going to be done. Here's the proximity to failure that I want you to get towards.

Here's these things that are at least externally measurable or observable on some level. And because I do think that, like my takeaway currently regarding the physiological understanding of hypertrophy is that yes, it is based on a net. Accretion of protein synthesis, outweighing degradation, that would be the equivalent of the calories in, calories out level.

It's like that's, that is the scientific baseline that we are working with, that you have to accept. And what goes into synthesis is a tremendous number of physiological pathways. That's probably mostly the most optimal, or the largest is probably the mTOR pathway. But there's a number of alternative approaches towards being able to modify translation.

And, then if we look at the degradation pathways, there's a number of those as well. And the com, like the, that's only the ones that we are aware of at this point in time. With a very short runway of scientific analysis into these topics that, in to I suppose that I just have a very deep appreciation of how complex in vivo biology is, and that, like my, I worry about people that appear overly confident in their approaches with the complexity of in vivo biology, where it's I have a lot of respect for the system and just how magnificent it is.

And I certainly don't think of myself as someone that has the bandwidth to really understand what's going on with it. I. I like listening to to perspectives, and I like observing changes and seeing what other people seem to do that works. And I enjoy tinkering in my own personal organic laboratory, in my own training and approaches to changing my body.

But I I'm very low from a confidence perspective in terms of thinking that I understand what's going on.

[00:49:38] **Dr Mike T Nelson:** Yeah. It's almost like I talked to Cal Dietz about this years ago. The catch 22 of, we're both laughing that it's do you ever feel like the more you know, you feel like you know some stuff and then you realize that because stuff, there's all this other stuff that you know, like nothing.

And then in 10 to 20 years, we'll just be sitting around going, We don't know anything at all. . Yeah. A

[00:50:01] **Dr Pat Davidson:** hundred percent. And I think that I've had recent frustrations with younger people in the profession based on their confidence, And it's you're way too confident in this current mechanistic explanation that you're buying into.

Just hold on. Explore it. Have some humility, have a sense of humor about it, because if you really think that this is gonna hold the test of time, , I don't know, you just haven't been disappointed yet in, in your professional. I like having conversations with people that have been around long enough to have been wrong and disappointed multiple times.

Like I, I have higher levels of confidence in people that have been wrong than I do. And people that, that have not been wrong yet. And so I, I think that, I don't know, maybe that's just something that old guys say. Yeah. At this point in time, , but .

[00:50:50] **Dr Mike T Nelson:** Yeah. No, I always joke that it's, you can either get really good at the black box of physiology, of putting inputs in and measuring the output and doing this kind of iterative process of trying to figure out, like you said, Hey, I program this thing.

Oh, I got this result. Cool. I tweaked this. I got this. Or you can try to look inside the black box and get all mechanistic and stuff, but they're almost two different things. To me, the only reason at this point in my career, looking inside the black box, is to get a better input, to put it in, to get a better output.

I'm not a researcher. I'm not trying to solve, the confirmation of mTOR too, the blah, blah, blah, blah. I don't, I think it's interesting. I might read about it. That I'm trying to use mechanistic stuff to get a better input to stick into the black box to get a better output. Where I feel like when you're younger, there's this tendency to call it, I call it like mechanistic madness of, Oh my God, I just heard about mTOR one.

This is amazing. So bro, you just gotta do this with the protein and do that. And they're like a hundred percent sure that this is correct. And then, , you show 'em some Stu Phillips data where some of the acute stuff doesn't match some of the chronic stuff. Sometimes it actually does match.

It's not like it's this super clear story, so you can't outright dismiss it, but it doesn't account for a hundred percent of everything that's going on either. And then their head just explodes because they get confused as to what to do now.

[00:52:18] **Dr Pat Davidson:** I think it's a really good point and I do, I think that, like BCAAs are a classic example of that too, where it's like, Hey, if you really wanna get like super myopic on.

Like a mTOR pathway, you can get into this like it's happening at the ribosome and it's like growth hormone seems to be this thing that opens these portals that admit losing into the region of the ribosome where mTOR is working. And if Lucy is present at a high enough level, that is what Disinhibit mTOR and allows the machinery of translation to just roll un-impeded..

And it's Oh, okay, great. So the only thing that matters is LE levels. And you're like, Hey, let me just pump, loo and BCAs. And then it's actually BCAs just seem to be a complete waste of time and money and you need complete proteins and we don't really understand why. But we certainly seem to understand that BCA supplementation at this point in time is a bad approach.

It does not yield. Any real performance benefits or ergen aid. So it's yeah it's, I look at a lot of this stuff like sunlight, it's like people get myopically focused on vitamin D as being like, Oh, sunlight is important for you because vitamin D. And it's when sunlight hits human skin, it probably causes 40 billion responses that happen.

And, the observable thing that we've been able to measure has been vitamin D, but trying to like, like supplement with vitamin D hasn't really led to the same sorts of benefits that we postulated it would. And so maybe it's a bunch of other things interacting. Same thing with soil, I think you go back to Justice Bon Libi discovering that NP and K.

In dirt is what makes plants grow. And so he invented soil and that resulted in the greatest population expansion in human history. But it also seems to have led to nutrient deficient plants because n P and K aren't the only things in soil that, Yeah, they make the thing grow, but they also might leave.

It lack luster in terms of what's going on inside of the plant from a micronutrient perspective and an overall health benefit perspective of the whatever animal consumes it after the fact. Yeah you're giving more in terms of, calories and load, but you're not giving some of the intangibles, they're not intangibles.

They're just things that like we weren't aware of or weren't able to measure at a certain time. And that. Emerge is important later when we develop the sophistication to be able to measure and understand the importance of those things. Again, like I, I try to keep those things in mind all the time, is here's I'm going with a plan based on what I understand and it's my best case of putting everything together that I believe matters on this topic.

And and that's what I got right now. And hopefully it works and sure it's gonna lead to some adaptation and change and all that stuff, but do I ever assume that it's actually best case? I hope not. Because at some point in the future, a hundred years from now, someone will probably look back at it and think that it's just as preposterous as me looking at those videos of people using fat shaking belts by the beach and black and white movies where you're like, Wow.

Really. But then again, like there's still people doing similar stuff today with believing that they're gonna freeze off cellulite or something like that. There's a sucker born every day and I suppose like with my education, I'm just trying to become less of a sucker over time.

[00:56:03] **Dr Mike T Nelson:** Yeah. And I similar, I always find it fascinating of what is the newer stuff you can speculate on and run your own experiments versus don't throw and use that only and throw out like all the time tested principles. A hundred years ago, there's examples of people with amazing physiques just using basic overload and shit.

There weren't hardly even in many barbells for a while, it was just weird shaped objects of sorts, but I think it's easy to throw out those principles and be like, Oh, those people, they didn't know what was going on. I'm like they maybe not, but they seem to make some pretty damn good results.

And this is, before drugs, pharmacology, et cetera. Exactly. So we can't just throw everything out the window and be like, Oh, this whatever is like the latest and greatest. Maybe not, but maybe you can add that in a little bit with, some of the time tested principles that we already know about.

[00:56:56] **Dr Pat Davidson:** Yeah do think that is once, once something exists and look like it is, it's really hard with drugs and like human beings, like each

individual is gonna respond differently to million different things, but, Yeah, it like the optimization of movement for matching pation angles and this, that I'm like, I feel like a lot of these things are just rehashed versions of the same movie that I've seen before.

It's like a bad remix. . Yeah. It's like the sequel or the third time it's ah, I'm pretty sure Michael Myers is gonna like dead and then he is gonna come back again. But it's as, because I really, there's just like this reemergence strong reemergence of lines of pull and matching those things with the orientation of fibers and being able to bias certain regions or, divisions of a muscle with the fibers that are, that make up those divisions.

And it's kinda I, it's the same story that we were getting back with the invention of Nautilus in a lot of ways. It's the same story as what Brett Contreras was trying to go with from the, from his like vector theory of like horizontal lines of force versus vertical.

It's if you haven't heard the story before, it's gonna be the first time, and the first time for people is always very convincing. And then after you're like, ah, this is yeah, it's like a reinvention of the same movie, same story. Like I feel like we've been here before and discussed this you're always going to need some level of compound movements that are never going to be exactly the same orientation as the direction that the Pan Nation of the fibers runs in.

Yeah. But they're valuable because the forces are higher and look like if you just look at human tissue, it's a bit like plywood. Where you've got some fibers that run in one direction and other fibers that cross over in an alternate direction, and it just provides a more robust structure that's capable of dealing with, like forces that can run in a lot of different directions.

So it's sure you need to have the big compounds in place as like the, it checks the really highest forces box of this series of inputs that are important. And then it's probably also important to get isolation movements in that will, in fact bias, other parts of the muscle, and as long as you're getting those things good enough, you're probably checking off all the boxes. Making sure that the isolation movements have an exact correspondence with the, every division and line of fiber orientation. I don't think that we can make a statement that's Oh, this is an essential ingredient at this point in time.

It's probably just more a supportive method of training and one that, as long as it's like even approaching doing what it should do is good enough. It's probably

a lot like parenting. You're looking for development of an organism and being closer to the bullseye doesn't actually lead to better parenting approaches.

It just needs to be within a window of acceptability. And then whoever that individual is, will develop according to whoever it is that they are from a genetic standpoint. And I think that the same is probably very true about hypertrophy. Like you are you and you are going to potentially develop as best as you can with your unique shape and everything about.

And as long as I'm within a window of acceptability and I'm continuing to progress over time with the big levers of potential progression, which to me are, resistance training, progression, nutritional progression, and supporting lifestyle progression, which you could probably put pharmacology in if you were going to talk about drugs.

Progression. I think those are the areas that you can toggle and see how far they can go. But ultimately accepting that your unique kind of, I don't know, profile is what it is. You can just be a more muscular, leaner version of you with toggling those three levers appropriately over time.

But searching for some of the magic bullets inside of those are probably not going to yield a any real demonstrable difference.

[01:01:53] **Dr Mike T Nelson:** Yeah, I think humans, you're just pre-programmed to think linear. So we think, Oh, compound was good. We've got this exercise, this more, exactly, targets this, whatever fiber let is do side because of the rotation, whatever.

It's like maybe it's just because you grabbed something and pulled it towards yourself, like maybe that's probably enough, right? The exact angle, the Pennan match or whatever. And the fact that maybe that was novel enough that got your attention that you maybe added it in now, so you weren't doing it before.

So the fact you go from not doing anything at all to doing this thing, that's probably what, 90, 95% of the effect, but . As humans, we like to think that it's linear. That if we just find these little things, eh, close, probably close enough, and we have to have a cool story, otherwise we don't do a lot of stuff.

So it fits both those things. And at the end, if you're better, great. But then, like you said, you have people running around saying, This is the thing that you need to do and this is the magic bullet for you. And then I wanna palm my head against the wall .

[01:02:57] **Dr Pat Davidson:** Yeah. If I was gonna guess at a magic bullet, it's progress.

Yeah. That's really it. It's just that progress becomes horribly uncomfortable at certain points. Like at a certain point, like, how far can you push food? How far can you push training tolerance? How far can you push drugs or sleep or any of those things. So it's like I, I of look at it as you have these different areas and focus on one of 'em at a time and let the other ones rest at whatever base camp they're at.

And then once they're like recuperated, see if you can shove 'em a little farther up the mountain and then let 'em rest in their base camp. Again, it's, it, to me it's what you're talking about from a linear perspective, it. I like, without getting into the nitty gritty of dynamic systems.

Yeah. I think that overall dynamic systems to me are that we are all a bit like marbles and we're all trying to roll uphill with these things, and for a marble to roll uphill takes basically, like it's similar to like enzymatic reactions with activation energy, but overcoming this tremendous amount of input that would be required to actually drive something in an uphill direction.

And, if I can get my physiological marble in a given fitness area to push uphill, hopefully, then I can just let it settle at a certain spot. And the more that it settles, the deeper of a well, it'll dig for itself. And that's like my new plateau or my new baseline or wherever it is that I got it to.

But now that it's settled in this place, it's gonna take more activation energy and a tremendous amount of input and effort to drive it out of its well and to make it move up again. And hopefully then I can get it to settle somewhere else and Nestle into another. That's a higher well than the previous one and recuperate and be able to have this big effort and drive.

And it's how many times throughout your life can you do that? And it's probably like we're probably this collection of lots of marbles, like I just picture like this kind of landscape of marbles of I've got an aerobic marble over here and a muscle marble and a neurological marble, and there's just so many of them and they're all like being like, I can't drive all of them at once.

I need most of them to just be settling. And then I'm gonna pick maybe one or two. And if I can have focused effort on those ones, boom, I can drive those. And I need just enough input on these other marbles to keep them in their wells. Otherwise the well will flatten and then they'll slide down in the other direction.

And if they're important, they don't want that to happen. So what's enough from a maintenance perspective to keep 40 marbles in their wells while I focus on two marbles to create enough activation energy to shove them slightly higher up a hill, and, but that's to me, a three dimensional topographical map.

And having enough presence of mind to try to keep a map like that in your programming repertoire. Is a very big challenge from a coaching perspective. How much sprinkling of maintenance volume for things like stretch shortening cycle or aerobic or rotational force or those kinds of things, Do I need to be present in this current block where I'm focusing on building muscle tissue That's going to require this uphill effort of man, you're gonna have to eat even when you don't want to eat.

You're gonna have to keep eating and you're going to have to take on a tremendous number of efforts that are going to bring you within proximity of failure. And we're gonna have to keep bumping those up over time. Like you, because I, to me, again when it's all said and done, it probably is focal progress.

That's measurable progress and demonstrable progress. That is the really the only thing that you're gonna be able to count on that will actually consistently drive the sorts of adaptations that you want within the very small window. Ultimately, that can become a fitness quality.

[01:07:26] **Dr Mike T Nelson:** Yeah. That's awesome.

I love that. And that we're all in the war of fighting against entropy. , Just don't let all the marbles slide back down to the base of the hill and you'll be all right. And it, it takes a little effort just to keep 'em where they're at. Not a lot, takes a little effort. Which, back to what you said at the beginning, just don't let everything go to zero.

Just, Yeah. It's in some ways do that you're okay and it's okay to maintain too. , I tell clients sometimes if your life is crazy and lifting is not your number one goal, like just do something like, we'll program some easy stuff. Trust me, that'll be light years, the better of doing f all, nothing.

And it won't take much. In a couple months when you get out of your high stress state, you'll be thankful that you did something during that time versus nothing.

[01:08:11] **Dr Pat Davidson:** I almost think of it as if I had a weird dance recital, and if I only had the opportunity to practice it once a week for 10 minutes, that would be a lot better than not practicing it at all.

Yep. It would be like probably just enough to hang onto like some memory of what this thing is because in, in some ways I try to think back to what the ultimate simplistic rules are for biology and I think a lot of it is like memory and main being able to build things off of memory.

Like your genetics are a memory. It's your ancestors' memory that's handed to you about how to go through life, And it builds you into what you become. Somebody handed you your DNA and your DNA assembles you so long as you're given enough sustenance and sleep and nurturance and those kinds of things.

And then you acquire your life experiences, which are stored in your, your series of neurons and all of the synapses that make up those during your life. Plastic memories. And those things are used to be able to predict how to go about doing the things that you are want to do. But in some ways if you don't can, if you don't use it on some level, those things dissipate and it go away, and Do you want to strengthen the bonds of those memories and associations and create something more elaborate, or at the very least, do you not want, do you want to not lose them? So it's similar to me with training. Like it's just a trace is enough to hold on to something and focal practice is enough to build something into something greater.

It's just a question of how long can you create your own deliberate practice? That increases over time because of course, like when we're talking about training regular folks, like they're, they don't have extreme goals, but I have extreme goals and a lot of other people that I find interesting have extreme goals and it's like, how far can these things be pushed, and so it's all, to me, it's like discovering the. I don't know. The orchestral procession of what can take you to the farthest reaches that are possible is always like the really interesting stuff, and but it's I don't know it's I think of a video game in some ways, like getting to another level.

You have to go faster, you have to do slightly more. And once you get to that other level, can you hang onto it? Could you play the game? And if you didn't play the game for two straight months, you probably couldn't get to that level. You probably have to eat, sleep, and breathe that game for a while, chipping away at it to bang through to get to another.

But if you just played it once a week, you might be able to stay at that same level. What is the damn differences? And then from a psychological stress perspective of how much investment you need to drive uphill, like there's times where you probably need to recuperate your energies to be able to like, let it build again.

You can't, like if you just keep playing the same song for too long, you get sick of that song, you're like, Ugh, if I ever hear this song again, I'm gonna throw up on my shoes. But if you don't hear it for a while, but you maintain it in the background you might be like, Yeah, I haven't heard this song in a while.

It actually sounds pretty good. I'm ready to play this thing again. And if you just listen to Master Puppets every day, four times a day for four years you might get to the point where you're like, But if you don't hear it for a while, now all of a sudden it's fresh again.

I don't know. I'm getting too metaphysical.

[01:11:58] **Dr Mike T Nelson:** Yeah. Last point I'll wrap up is that I went down that path years ago for memory because I was gonna design an app. I'm like, What if you could figure out, because we know you need repetition, but we know the repetition is not linear. So I know if I try to memorize something every day Yeah.

Can I sit down and do it every day? Yes. But I really need to do it every day. And so it becomes more non-linear as you progress through time, right? . So maybe I need a lot of heavy upfront practice, but then I, ideally I'd want to be reminded of that thing right before I forgot it. So I would need to be reminded maybe three weeks into it, and then maybe six months into it. And at some point it becomes semi p. And could you work out an algorithm of, okay, I missed the memory recall on this day, so now I need a little bit more frequent practice. Okay. I hit it like five times in a row over the course of eight months.

Now it's semi permanent that goes into a shelf and I don't worry about it and maybe I review it once a year, right? Supposedly there's an old program called Super Memo that did this back in the day, but it's the same idea with strength training. Like how many exposures do I need? I probably need a lot more upfront.

I need to get the skill, but it's always fascinating that the memory and some of the skills we may not necessarily lose entirely. People learn how to ride a bike. They rarely ever forget how to ride a bike. But those fine scale variations of

modifying that thing and some of the tissue changes, all that stuff, if we're looking at lifting, has to be accounted for too.

So it becomes a much more complex problem.

[01:13:33] **Dr Pat Davidson:** It sounds like we actually have some similar interests because I have a bit of an obsession with trying to understand maintenance. , I find maintenance to be an incredibly interesting topic and one that gets no love and I wanna always see how small a dose can maintain something.

Yes. Because the smaller the dose that you can find to maintain something, the more you sensitize that thing for the ability for it to change. After that, it's it's funny because, the reverse diet concept of something that's gained a lot of popularity, but to me a reverse diet is even more interesting where it would be like, what's the lowest number of calories that I could possibly get somebody to where they can actually maintain their weight and their muscle tissue.

Because if I want to grow their muscle tissue and their weight, it's going to require a surplus. But what you find with surplus is worse than deficit in most of the time. It's look like deficit. Yeah. It's a hard, it's hard. You're hungry, blah, blah, blah. It's surplus. People can't do it at all because if you're not hungry and you have to eat it's just it, that's where the, I don't know, the boys get separated from the men, so to speak but if I can bring my surplus numbers down to such a low level, this to me is when tissues are so sensitized to growth. . And the only way I'm going to do that is if I get really good at understanding maintenance as a topic and being able to direct maintenance in a favorable manner. A reverse diet is great from the perspective of how sensitive can I get to weight loss and fat loss by, by making my deficit something that's really high.

But in terms of growth, if I can bring my maintenance really low, so I make my surplus really low, I just set the stage for this enormous runaway of like walking into further and further adaptation. And so I just view those things as being a spectrum in both directions. Probably available for all physical qualities, how small an amount of fast running can I do and maintain speed, how small an amount of heavy lifting can I do and maintain.

Anything, and then you'll sensitize that system for progressive overload. But it's such a small amount of stimuli that becomes the overload in the beginning because, it's it doesn't take that long before you're like, Oh God, this is horrible. I don't wanna do, this is terrible.

Yeah. What it takes to get better is God awful? So I, I, but I think that takes a lot of time to get to, to, in your career and your pursuit of this stuff to get to where that becomes like this very sexy topic.

[01:16:37] **Dr Mike T Nelson:** Yeah. I've often thought of that as a, I'm looking at my brain at a differential, right?

So if they're on a building phase and they get all the way up to here and they're just, plateauing and they can't do any more, steering competitions with white rice, they have no more time to train you. You've maxed out the system at that point within whatever constraints you're dealing with.

Then the maintenance phase, I actually want to go down as low as I can. Yeah. So a lot of people are like, just leave them on 400 grams of carbs and lift in 10 hours a week. I'm like, No, you wanna go the other way. You wanna get the system back down and hopefully you'll resonate at a new baseline, but your new baseline is lower in terms of inputs, but you kept as many of the qualities that you had before.

So now you can take, like you said, another run to go up and hopefully get a response from the system again, because you can't just keep going up and up forever. The professional athlete, maybe they can, but they're even gonna run into constraints at some point, so you have to kinda reset the system somehow.

to keep that output and resensitize it to a similar input, but yet different.

[01:17:43] **Dr Pat Davidson:** It's such an and look like it's, for whatever reason, the reverse diet seems to be something people latch onto and seem to understand. Yeah. The reverse diet is way more to me. And the same thing applies to training.

If my ultimate goal is, hey, somebody's I need to, I wanna be a professional body builder. I gotta get up to 300 pounds in the off season. It's like, all right, it is gonna take some time. As long as you're gonna take one run and get there. Yeah let's get you up to two 50 right now.

And you got, you were eating 800 grams of carbs a day at the end of this car at phase that we got you to, and you got to two 50. Okay, we're gonna now try to stay at two 50 and how low can we get your food And you stay at two. And hey, we got you down to 350 grams of carbs and you stayed at two 50.

Amazing. And this is probably impossible, but now it's hey, now we can start eating 450 grams of carbs and you can start going up again. Okay. And yeah, by the time we get to 800 grams of carbs again, maybe that got you to 2 65, 2 70. . just gonna keep boom, take a run, maintain it's just, it's going up a mountain.

And you just create new camps at different places. Like you got your base camp that you start off from, you start going up your mountain, here's as far as we made it, and now the air is too thin. My physiology can't handle this level of stress. Cool camp out there. Spend a week there, whatever it is, and then you can make another run.

It's just that it's gonna be longer, slower with changing your physiology. But the more that if people can understand If you can sensitize yourself to stimuli yeah. Look like I, I guess it's the mistake people make of thinking that short term efforts are going to yield more than they will, but failure to appreciate that chronic efforts will actually yield more than they think they will.

, it's a short term bias of overestimating the importance of a single session or a single effort and a long term bias of under appreciation of consistent application of appropriate stimuli.

[01:19:57] **Dr Mike T Nelson:** Yeah. Yeah. And that's something I've tried to do with my own training over the course of years when you have enough data.

So within the last three years, I've been as low as 207 and now I'm up to 235, but all those are on purpose. So the last time I was at 2 35, My body composition now at 2 35 is better. It's not amazing. It's on the high end. My lifts are at all time highs, so cool. So I'll probably ride that out.

We're gonna be gone to South Padre, so I know it's gonna probably go back down again. But when you do this over a period of years, you can compare what looks like on paper, those two similar points and be like, Okay, am I better now? Two years later at the same point than I was before. And if I am cool, then I've made progress over that period of time and I'm probably doing most things, quote unquote more Correct.

At that point then. Yeah. But that

[01:20:45] **Dr Pat Davidson:** doesn't sell as well,

[01:20:46] **Dr Mike T Nelson:** Mike. I know It doesn't sell

[01:20:49] **Dr Pat Davidson:** transformation, Join the six week challenge.

[01:20:52] **Dr Mike T Nelson:** Yeah. Yeah. And then the next six weeks we'll do something different, and then the next six weeks we'll do something different. .

[01:20:58] **Dr Pat Davidson:** And I don't think that we're gonna solve for that error of the fitness industry anytime soon.

But it is a comical error. And I think that over maybe a hundred years from now we, maybe it'll be shorter because I do think that the internet and social media, maybe it's the bubble that I belong to of other people that seem to probably be on the high end of understanding this. But I do think that there's more information available now about errors and fallacies of training.

Yes. And the fact that consistency, measurement those things are really what brings you there. And I've got into this field because of how important training is to me. And I, one of the things that I would love to see is more people getting really quality training and executing things in an appropriate manner and getting real results.

I don't like to directly coach people one on one. But I want to, I, I just wanna see the world exercise better and I wanna see more people able to actually understand appropriate methodology. And I don't know the best pathway to get there other than live it myself and articulate it as clearly as possible to others that, that are available to listen and myself listen as attentively as possible to other individuals who demonstrate great care and a desire to also understand this information as best they can.

But it's, that to me is what it always comes back to in terms of career pursuits and life pursuits for me.

[01:22:40] **Dr Mike T Nelson:** Yeah. And it's, to me, it's the never ending problem. The better you get, the better you have to get. And then just, you have to be a little bit weird. I've spent eight years of my life now trying to pick up 175 pound dumbbell for a single rep.

I still probably got like 40 pounds to go on it, but you have to be a little odd to just go in and from the outside looking in, Oh look, Pat's squatting again. Oh, he's lifting some heavy shit off the floor again. Didn't he do that last week? Didn't he do that 10 years ago? Oh yeah, he did

Yeah, it's true. And it's, but yeah, every day is a little bit different. You're at a little bit different point than what you were before. Your progress is a little bit different, more things than what you did before. So it's this kinda always appreciating the small minute differences, but staying on the same track at the same point.

[01:23:29] **Dr Pat Davidson:** Yeah. get back to uphill and mountains and stuff like that. I look at life as a bit like you, we all are facing a bit of our own mountain of dealing with, and you don't always have to climb it. You know what I mean? I think some people probably stay at the bottom of theirs, but other people are like, You know what I'm gonna keep trying to go up this thing and it's probably, you're probably not the guy from free solo.

That can just go straight up the side of it. We're probably regular folks and we probably have to walk up it, and that means concentric circles that bring you up the thing. And with that it's deliberate steps. And there's probably, with every mountain there's a good side and easy side where there's, more of a like grass and the sun shining.

And then there's a tough side with CRAs and loose rocks and ice and wind. And you just appreciate okay, I'm in the, I'm in the meadow right now versus I'm in the darks and the depths right now, but I'm gonna keep taking steps forward and I'm gonna keep staying on this process.

And, the main thing cuz you're always gonna circulate back through these different sides. The main thing that changes over time as you go through this pursuit is that you gain greater perspective on seeing the totality of a picture, And and also that it becomes more challenging to ascend the higher you get.

, it's that air becomes more thin and your fatigue probably rises over the time and effort that went into getting you there. And the desire to stop and settle probably increases, but it's always your choice as to whether or not you want to take another step in an ascension direction.

The other thing is that it's much easier to slide down than it is to go up, a couple of bad moves, laziness. Th those things, boom, you can slide straight down and you never know how far you're gonna slide. But then the question is, hey, you slid, can you dust yourself off, stand up, conduct yourself like you should as a person and begin this climb again.

You might learn some lessons from that slide that ultimately help you get even higher than you ever got before that. I I try to be someone that continues to take

another step forward no matter what, even if it's one where I can't even see what the next step is, but trusting that if I believe I'm going in the right direction.

And I seek guidance from other people who I believe are also ascending their own life mountains, that I'm probably going to continue to become a better version of myself that can appreciate challenges for what they are rather than to be overwhelmed by them in the moment and to then be able to be somebody else's Sherpa in their process of going through their own climb of their life challenges and mountain as well.

I like, part of it to me is that being able to learn physiology and play around with it it's like one and the same because it's so real. It is who you are. And a lot of these other parts of life are a bit artificial. When I think about money. Or, social media likes and things like that, that people can become really attached to and think that's who they are.

But in, in reality it's very much not you and not something that's it's not the stuff that's going to probably matter for what you stand for and how you come across to the other people that are important in your life.

[01:27:13] **Dr Mike T Nelson:** Yeah. Awesome. Thank you so much for all your time today.

And where can people find out more about you? I know you've got several products, several programs. Yeah. You've got the Instagram, the website.

[01:27:24] **Dr Pat Davidson:** I try not to run my own stuff anymore at this point. I find removing myself. So in some ways I don't I know that my Instagram has every link and everything to everything that I do, and I'm at Dr.

Period, Pat Davidson. So it's at Dr. Pat Davidson, Dr. Period, Pat Davidson. And with the Link Tree stuff in the Biolink it takes you to everything. I have different products that I do. I have a seminar and certification system called Rethinking the Big Patterns, and that is a it's, it is, I guess it's a biomechanics based system, but to me it's an algorithm that helps fitness professionals decide on exercise choices from an exercise selection standpoint for their clients.

It guides them on how the person can do those movements properly, and it gives them a trajectory for how to progress them through what movements would be important for that person from a training outcomes perspective. I also have an online training system called Athletic Weapon which is a sort of a mix between training for sports and training for building tissue.

And it's almost if there's power building of power lifting and body building, I would say that this is strength and conditioning building. It's Hey, if you wanna be fast and powerful, like sprint, throw med balls and get jacked. This is it. It doesn't have an exact name to it, but it's like athlete version of power building.

And then I have some low price point things like the power hour, which is a weekly education thing that I teach. And an exercise database which brings you through all the exercises from rethinking the big patterns, which include a lot of like frontal plan and transverse plan drills that a lot of people would probably benefit from understanding.

[01:29:19] **Dr Mike T Nelson:** Yeah. And I really enjoy the rethinking to the big patterns because I think for most trainers, they come in, they're so saal based, and there's a time and a place obviously for those lifts, but it's very hard to think outside of that box. And so I think trainers getting exposed to rethinking the big sooner is just a lot less stuff they have to unlearn later.

And I think they'll just literally see more progressions and options, especially for clients or their training are probably not gonna be elite level power lifters, et cetera. So I like that. And the, all the information you have on the power hours you've posted has been. Super good. For I don't know, a couple cents a day or something.

It's definitely worth it. So I would encourage people to always check out all your stuff. It's been very cool to see all of it over the years too, which has been super fun.

[01:30:06] **Dr Pat Davidson:** Yeah, it was really good catching up with you, Mike. It's been way too long, so

[01:30:09] **Dr Mike T Nelson:** yeah. Good to see you. Thank you so much for all your time today and we encourage people to check out all your stuff.

Thanks again and good to see you. Thank you. Yeah.

Thank you to Dr. Pat Davidson for being on the podcast here today. I would highly recommend you to talk out his materials. Really great stuff. I've learned a lot of different things from him over the years. Side story, as I was thinking about this recording. I actually did meet pat before Dr. Ben house. This place.

I totally forgot that I. Read some of his. Early work on. I think it was the deadlift was the first article I ever read from him. And I stocked him at a PRI

vision course. And I bought for myself as my. Birthday, present to myself. Man maybe seven or eight years ago now. What was a great course? I'm not sure I would recommend going down the PRI postural restoration Institute, rabbit hole with the vision course as the first

But it was really good. It was a very informational and was useful. From understanding, I think the principles of it. So huge. Thanks to Dr. Pat for all this stuff would highly recommend you check out his Instagram and all of his work. And this was brought to you by the flux diet certification. If you want more information on a complete nutrition and recovery system.

That you can use as a intermediate to advanced fitness enthusiasts, or especially as a trainer or coach. Go to flex the diet.com F L D DIU t.com. And there you'll learn about. The eight different interventions of how to use each one. To improve body composition performance and add more muscle. Everything from a protein to carbohydrates, to neat sleep. Micronutrition intermittent fasting, taquito.

And all of those. In a complete system. So you understand how each one of them a work. When to use each one in a progressive manner. Got great details on interventions for each one. So there's eight interventions overall. And then I break down those each one into five specific action items. So at the end of the certification, you will have information on 40 different action items.

How to use them. And then more importantly, how they fit into the big picture and the context, because what I've seen with a lot of certifications out there. One of those three areas is normally missing in them. So go to flex diet.com. For all the information you can add your name to the waitlist there. If it is not open.

And check out all of Dr. Davidson's material. Thank you so much for listening to the podcast. Really appreciate it. If you have time, I'll please share this. Someone around. If you enjoyed please tag me and Dr. Pat. So we can say thank you for doing that. And if you want to place a review in iTunes or your favorite.

Podcast a player. We would really appreciate it. Thanks again. Appreciate you listening and all your time. We will talk to you next week