

Announcer ([00:00:01](#)):

You are listening To the human upgrade with Dave Asprey

Dave Asprey ([00:00:10](#)):

and we're talking about NAD, we're talking about mitochondrial function, all those things which help with muscle, but if you do those and you don't have muscle, what happens with aging patients?

Dr. Gabrielle Lyon ([00:00:22](#)):

Yeah. This idea of skeletal muscle health has really been overlooked and I appreciate you giving me the opportunity to speak about skeletal muscle as again the pinnacle of health and wellness and this organ of longevity. There's something very fascinating and I just want to point this out to the people in the collective and your podcast listeners, is that we have been hyper-focused on symptomology, meaning we've been hyper-focused on end state of aging, whether that is Alzheimer's disease or later stage cardiovascular disease or even obesity type two diabetes. These are diseases in my opinion, and the evidence would support this of skeletal muscle first. So understanding and putting skeletal muscle into this framework of not just physical excellence because by the way, I'm sure you guys saw Dave is very ripped right now, lean and ripped, but really skeletal muscle is this organ system. It is an endocrine organ system and it determines everything from glucose disposal, which the carbohydrates that you eat to its function as an endocrine organ through contracting skeletal muscle release of myokines. Now your original question was, let's say you do NAD and you support mitochondria. That's all wonderful and the reality is as we age mitochondria, which a lot of mitochondria is found in skeletal muscle, skeletal muscle goes through physiological changes as we age, for example, like anabolic resistance. This idea that skeletal muscle is a nutrient sensing organ, which is fascinating. This idea that skeletal muscle senses the quality of the diet through the amino acids that are presented to it and that efficiency of protein utilization declines as we age.

Dave Asprey ([00:02:17](#)):

Here's a question. You say this happens as you age potentially. There you go. That was the little asterisk. It doesn't always happen as you age. It just happens if you don't do something about it because it's really important for listeners to get that vibe there. You can control this, but if you don't control it, it will happen.

Dr. Gabrielle Lyon ([00:02:32](#)):

I actually really appreciate that. In the literature there's a large body of evidence related to aging skeletal muscle, this concept of sarcopenia, which is a decrease in muscle mass and function, and also a handful of causes related to what we would call the hallmarks of aging. You said something very smart and it's this idea that these things don't have to happen. A large majority of the research that we look at from aging are healthy or sedentary adults.

Dave Asprey ([00:03:05](#)):

Right. Healthy my ass. Those are not healthy people.

Dr. Gabrielle Lyon ([00:03:09](#)):

Exactly. So the framework that we are viewing these physiological changes in skeletal muscle, while we call them healthy older adults, the physical activity or the stimulation of skeletal muscle, they are a

disease population and this change, one of those changes with anabolic resistance, does it need to happen? Potentially it does not. So you're absolutely right, potentially it does not. And again, can you overcome it? Can you change it? Yes.

Dave Asprey ([00:03:36](#)):

You're pointing out a major problem right now. It's that almost every test you can get done compares you to muggles and if you're a biohacker, you are not normal. You ideally are several standard deviations away from normal, which means you're abnormal in the best possible way. Superman's abnormal too, and it's not a bad thing. So that means that any study you read on aging was they looked at a whole bunch of sick people to see what they did, but those people are not like the statistics in those things are not like you and the lab values they target are not like at 40 years as in my neuroscience company, every quantitative EEG done and brain aging actually goes along with muscle aging, but they compared them to a set of brains that were scanned in the 1970s from a bunch of muggles. These are people who are not healthy, who are smoking, were drinking, they didn't do any controls, just a bunch of random people. And there's nothing wrong with being a random person, it's just that might not be what's for you. So I have a database of 1500 super brains of people who are into biohacking and brain training, and when you compare yourself to that, it's very different right now you can't really say, well, how do I look like compared to super ages on these things in most studies, but you probably can with a measure of skeletal muscle mass, right?

Dr. Gabrielle Lyon ([00:04:57](#)):

Yeah. How would

Dave Asprey ([00:04:58](#)):

You do

Dr. Gabrielle Lyon ([00:04:58](#)):

That? You can, first of all, I've never heard the term super, super ager. Is that your term? I love that

Dave Asprey ([00:05:05](#)):

There is super centenarians which has been used. James Clement I think is the one who studied them the most, who's been on the show, but super ages are people who age really well. I think I made that up, but I might have heard it somewhere

Dr. Gabrielle Lyon ([00:05:15](#)):

Else. Well, I love that. I've never heard it.

Dave Asprey ([00:05:17](#)):

Okay. I think it might be an original accidental invention.

Dr. Gabrielle Lyon ([00:05:20](#)):

Well, I love it. Let's talk about, especially for the biohackers, this idea of optimal skeletal muscle and before I provide you with any kind of answer, I want to tell you where the massive flaws in the way of thinking and looking at skeletal muscle are right now we are very good at measuring fat mass and in fact that's what we've done. We've measured fat and bone dexa, which is considered the gold standard by

the way. There are again, large bodies of evidence. This is the shoulders that we stand upon, this idea that DEXA is going to tell us the amount of skeletal muscle and the optimal amount is flawed on a fundamental level. Are you ready? I'm so

Dave Asprey ([00:06:03](#)):

Happy you said this. Okay, tell me why

Dr. Gabrielle Lyon ([00:06:05](#)):

It doesn't actually measure skeletal muscle mass directly DEXA that we have been using does not directly measure skeletal muscle mass, nor does it measure the quality of the tissue as an individual ages. Skeletal muscle becomes, if it is sedentary, there's this decrease in flux. It's like an overpacked suitcase. Skeletal muscle that is not trained and leveraged with physical activity will become like a marbled steak.

Dave Asprey ([00:06:35](#)):

Yes,

Dr. Gabrielle Lyon ([00:06:36](#)):

This one major cause of insulin resistance and the subsequent diseases that follow that, but skeletal muscle is not measured directly, routinely nor in literature. The way in which it can be would be potentially MRI or ct. The majority of people do not have access to that, and it is also not used in most research studies. So right now what we have is an extrapolation or an estimation of lean body mass, which is not the same as skeletal muscle mass and we are not directly measuring it. So actually Dave, I have no idea what your optimal muscle mass should be.

Dave Asprey ([00:07:18](#)):

This raises a couple of questions. Okay. Number one, the founders of prevo or the founder, the chief medical officer, which is an MRI, whole body, MRI technology have been on the show. I did it at their first beta location in Vancouver about five years ago and again last year in la. And that gave really good indication of these things including things like liver or fat, which isn't a muscle, but my number was I think under one and a half percent. It was a very, very low range, which is really important. If your liver is fatty, you probably have fatty muscle and if your liver's not fatty, you probably don't have fatty muscle. I don't remember though in my score a muscle quality score even from those guys. So how would I get that?

Dr. Gabrielle Lyon ([00:08:05](#)):

Well, that's a great question. And again, these standards are not done yet. They don't exist. These are major gaps in where we are. One way in which you would see the quality of skeletal muscle is basically, I'm sure that there is a calculation where they would be able to look at intramuscular fat. Potentially

Dave Asprey ([00:08:25](#)):

There

Dr. Gabrielle Lyon ([00:08:25](#)):

Is, but not routinely Don.

Dave Asprey ([00:08:27](#)):

Okay. So I'm guessing that they could write the code for that and I'll actually ask pre Novo about that because they rewrote all of the software using AI to subsidize. I don't think it would be a hard challenge. So let's ask 'em. Maybe you can advise them.

Dr. Gabrielle Lyon ([00:08:42](#)):

And then the other thing with muscle there is likely a genetic potential and I think striving to reach whatever that individual potential is important because skeletal muscle ultimately becomes your body armor and do you have to spend four hours at the gym to get there? No. But again, thinking about there's a genetic propensity for an individual to put on skeletal muscle and providing yourself with strategies to be able to optimize that genetic potential I think is absolutely critical.

Dave Asprey ([00:09:15](#)):

Thank you for mentioning genetic potential. I was changing shirts before we started recording and I'm pretty ripped right now, and so you caught a glimpse of that as the cameras were turning on. I work out 20 minutes a week, but I'm doing this stuff in smarter, not harder. I'm doing upgrade lab technologies that are AI driven to put a stimulus in. So people are like, oh my god, 20 minutes a week because oh, six years ago I had my gene tested and compared to a bronze gold medalist in some strength, one of the strength things and my genes were 2% better than his for strengthening. So yes, I have the genes to put on muscle, so someone else might need 40 minutes a week if they don't have the same genetic potential. I also, and this is where I want your advice for especially younger listeners, in my early twenties when I said I'm going to lose my a hundred pounds of fat no matter once and no matter what, I hit the gym 90 minutes a day, six days a week for a year and a half, I could max out all but two of the machines.

([00:10:16](#)):

I was really strong still at a 46 inch waist. I was still fat. It didn't work right. But I believe all of that set me up to be able to put muscle on easily later in life. I was conditioned that way as a young adult.

Dr. Gabrielle Lyon ([00:10:31](#)):

What

Dave Asprey ([00:10:31](#)):

Would you tell younger people to do about that?

Dr. Gabrielle Lyon ([00:10:34](#)):

So I have two thoughts on that. Number one, training younger is very advantageous and there's been a lot of information out there saying that when you are younger it's going to stunt growth. I have two very little children and that information is false. It doesn't stunt growth and it doesn't affect growth plates.

Dave Asprey ([00:10:54](#)):

Even really heavy lifting,

Dr. Gabrielle Lyon ([00:10:56](#)):

It doesn't necessarily even have to be heavy. Heavy is all relative. I

Dave Asprey ([00:11:01](#)):

Mean I looked at this a lot for my kids. They wanted to do the upgrade labs. I think that flexes your bones and I found

Dr. Gabrielle Lyon ([00:11:06](#)):

Some that may be different bone again. But again, you are talking about something that is utilizing AI as opposed to what is available for a non biohacking child.

Dave Asprey ([00:11:19](#)):

Like a max weight deadlift for a 6-year-old is probably not a good idea, but they should be doing strength work. But just max heavy strength work. I've told my kids, wait till you're 18, maybe 16, what do you think? I've seen 16 year olds on rowing teams actually stop growing because of over training, but that may be volume of training not because of actual strength.

Dr. Gabrielle Lyon ([00:11:42](#)):

And I think that one could say probably a max deadlift at six or 16, maybe too young. But I think that based the data and lifting and stimulating muscle, whether it's for muscle hypertrophy or strength, that there is no good clinical indication for individuals to not be training young.

Dave Asprey ([00:12:06](#)):

Amen. Double down on that. One of my most recent proud father moments was when my teenage daughter spent some time with me and watched me biohacking. We were traveling to a Vision LA conference in Europe and so I went to the gym with her and she's like, this is fun. And then she said, you know what? I can do this twice a week. It's only going to take me 20 minutes. We have this stuff at home. I'm like, yeah, but she made her own decision to do it. It's fun. And it's not like every morning and for a teenager who just wants to feel good not become a bodybuilder later in life, how much weight bearing exercise, how often is ideal?

Dr. Gabrielle Lyon ([00:12:48](#)):

So this is a great question because from your perspective, I think you've been able to kind of biohack the system. So I'm going to give you information from traditional literature, not using ai, not using any kind of stimulation. There is a very easy rule of thumb individuals training three days a week, you could train three to five days a week. Again, there is a strength continuum so you don't have to necessarily load super heavy. And we've all heard this, the eight to 12 repetitions again, could you do more than that? Absolutely. But I think starting three days a week is a perfect place to start unless you are Dave, unless you are using AI and working 10 sets the other side to that 10 sets per muscle group. The other side to that, that is a very generic recommendation. This is a very generic recommendation.

Dave Asprey ([00:13:42](#)):

Your fitness competitor level. I've seen your Instagram, you're like, look at my apple bottom and whatever the hell else you call it, but you are super fit and you're kind of a gym rat and that's a compliment, not an insult at all, but you love it, you want to do it. My kids are studying and they have stuff they want to do. Talk to me about minimum effective dose for teenagers because they're more likely to do that three days a week is a lot to ask for a teenager who has a busy life

Dr. Gabrielle Lyon ([00:14:10](#)):

Potentially, or are we training them to create physical discipline? I will say there is that. There's the physical discipline aspect. The minimum effective dose could be some kind of high intensity interval training. I'm curious to hear what kind of training you're doing, but for example, Martin Gal created the one minute workout and he's up in Canada and I mean that is full out maximum effort and that would just take a minute, a minute of total work and you would be toasted.

Dave Asprey ([00:14:43](#)):

I would do that three times a week with kids. That's fine. What I'm doing now is pretty much a variety of the things in the strength chapter of smarter not harder. So I'll use blood flow restriction which amplifies the results you get. Even if you're less weight, electrical stimulation, sometimes I'll use resistance bands instead of lifting weights and I pretty much don't lift weights unless I'm at a hotel and I'm like, oh, I guess I'll do some flies or whatever. Just because, and if I do that, I never spend more than about eight minutes doing that and I just exhaust the muscles as fast as humanly possible because all the data that I've seen from doing the research on the books says the faster you exhaust and then the faster you recover equals more growth and less time. But if you exhaust, exhaust, exhaust, exhaust, exhaust, exhaust and then recover, your body doesn't adapt as quickly so you don't see the same benefits. There may be some upper limit if you're a fitness competitor and a bodybuilder or something, but for me, I want to minimize the amount of time and energy that I put in to maintaining why right now I'm probably around seven and half percent body fat. I would

Dr. Gabrielle Lyon ([00:15:52](#)):

Guess that

Dave Asprey ([00:15:54](#)):

I have exceptionally dense bones and I'm in great shape. New York Times says I'm almost muscular, which is the vibe. I want to live a long time. If I put on another whatever X number of inches, I'm actually going to have a hard time fitting in shirts and I don't know that I'm likely to live longer if I had a much larger chest than I do now or am I? I dunno. You would know.

Dr. Gabrielle Lyon ([00:16:15](#)):

I have thoughts on this. The skeletal muscle as body armor, let's say you were to get injured, knock on wood, that never happens or you were to get sick. An individual, whether they are 40 or whether they are 20, will lose around two pounds of skeletal muscle in seven days, probably closer to five days

Dave Asprey ([00:16:41](#)):

Depending on what they're eating. Right.

Dr. Gabrielle Lyon ([00:16:42](#)):

Well there is a grace period of about seven days with an increase in leucine content. So there is a grace period, but after seven days that immobility is devastating for both strength and muscle mass. In an ideal world that never happens. But the reality is if in fact something were to happen, I would always like less, not more.

Dave Asprey ([00:17:06](#)):

You mean less?

Dr. Gabrielle Lyon ([00:17:07](#)):

Sorry, you mean

Dave Asprey ([00:17:08](#)):

Not less? You mean more muscle? Not less. More

Dr. Gabrielle Lyon ([00:17:09](#)):

Muscle. More muscle rather than less. There is no evidence to support that more muscle mass would be detrimental. I have not seen that. Now we're not talking about bodybuilders using supra physiological doses of any kind of hormone that's changing their muscular tissue. We're not talking about that. We're talking about, yeah,

Dave Asprey ([00:17:35](#)):

There's a certain amount load on the heart. If you're walking around with three times the normal amount of skeletal muscle mass, that's probably not good for you. And we see cardiac issues in those exceptionally large bodybuilders, but who knows, maybe it's from all the roids. I'm doing my best to

Dr. Gabrielle Lyon ([00:17:52](#)):

Leveraging right now what you said, body mass, you have to pump a lot of blood. So I do think that there is evidence to support a more muscular body rather than a less muscular body in the idea of framing with prevention. The other thing that becomes really important is that we've seen this, we've seen that individuals who lose skeletal muscle have higher blood levels of glucose, have more insulin resistance and oftentimes have elevated levels of triglycerides.

Dave Asprey ([00:18:30](#)):

It makes so much sense because what is the muscle doing? It's actually using blood sugar and if you don't have muscle and you have blood sugar, well what's it going to do exactly And it's also going to build up, which then you get advanced glycation and products, which is one of the major causes aging and it's just a bad situation. But I have a little story about the value of muscle mass. About 25 years ago, my father was in really good shape because he'd been training in order to do to walk the Rocky Mountain Trail that goes from Mexico to Canada and he was really, really into these long distance solo backpack and he started getting pain in his stomach, really, really bad pain and went into the hospital and they said, we think it might be appendix. And he goes, I don't have an appendix. Well wrong. He just remembered it being taken out, but it wasn't. So it went angerness and exploded. As a doctor, that can be kind of fatal when you start doing that. Well, because he was so muscular, he survived, but he lost 25 pounds of skeletal muscle during his recovery. If he hadn't had that muscle, he would've died. He says that to this day. Yeah, if he had a car accident, something bad happens. I dunno, government tells you, you can't leave your house for three years, whatever. Having skeletal muscle mass might be good for you.

Dr. Gabrielle Lyon ([00:19:52](#)):

I would agree with you

Dave Asprey ([00:19:53](#)):

Guys back when John was on the show actually before you've, even on the show you sent me one of the first five x three bars ever made and this is something that you've become well-known for and this is the way you apply variable resistance. I even wrote about it in Smarter Not Hard, which is one of the several different ways that puts muscle on better than picking up rocks. And I think that there's probably a Facebook posting or something back then that I did it, it totally helped to blow up but got a lot of attention on it and you could really feel and see the difference. And you just came out with a new digital version of the X three bar, which is why I want to have you back on because this thing is really incredible. I'm all about the data. I don't care what some epidemiologist says or some super angry men's health exercise physiologist who's basically a troll out.

([00:20:41](#)):

I don't care what they say, I really don't. All I care about is my data or your data and your are my results. So some clown can tell you that statins work and the only way to live longer is exercise. And there's a longevity guy out there, a doctor trying to say these things right now. The reality is it's more complex, but show me the data and the data is you. So with the X three bar, I tried it for a few weeks before I promoted it. I was like, holy crap, this is different. And with the digital version you have, you can show people they get stronger, faster, and you can show 'em exactly how much they did. So I'm a huge fan of this.

John Jaquish ([00:21:19](#)):

You don't have one yet. You're going to,

Dave Asprey ([00:21:23](#)):

I know the value of data for motivation and I know the value of the X three bar. So like a digital X three bar, it's so good.

John Jaquish ([00:21:30](#)):

So yeah, variable resistance will make you absolutely stronger so much faster. But the concept of progressive over just most of the audience probably never heard that term. What it means is you need, I never liked the term before because when somebody would say, what's your method of training? They're like progressive overload. So your method of getting stronger is getting stronger. Really what that means, it's like that kind of dumb. But the concept is if you are getting stronger, you can progressively handle more resistance. So you can go up in repetitions or you can do the same amount of repetitions and each repetition is done slower. So more time under tension that's progressive overload or you're dealing with a higher level of resistance. So all three of those things, or a mix of any of those things is greater force created. So you're progressing the overload. You only grow muscle from a protein synthesis standpoint when you best those numbers. So if you're not beating your previous, then you're not really doing anything. Now this is just from a myofiber perspective, not a Sarco Plasmic perspective, but for the people who want to be as strong as possible, you want to make sure you're breaking your record every time. True

Dave Asprey ([00:22:59](#)):

Though, if I flew around the planet yesterday and I've got circadian disruption and I'm recovering from a cold and I go into lift, do I really want to break my previous best on that day when my body isn't really ready to grow?



John Jaquish ([00:23:15](#)):

I would tell you sleep today, let's do it. Okay,

Dave Asprey ([00:23:19](#)):

There you go. So that's part of what Upgrade Labs is doing. It's like, Hey, let's get your data and if your desire is to lift heavy, but your body is like, no, Uhuh, let's not do it. Let's put you in an advanced recovery protocol, right?

John Jaquish ([00:23:32](#)):

Yeah. There are plenty of days where your body says no, you want to create that environment where you're besting your previous. So the original program was more like a standard kind of fitness program. I'm doing something a little different now. Whereas we focus on strength. You basically just do one set per exercise per week and you're fully recovered going in because you had an entire week rest. And then in between you just do volume work. And so my approach to this, and I haven't launched the program yet because the number of sets is a different per body part and the exercises are done a little differently because it's a little different focus. But ultimately what we want is just maximum blood flow. So I mean you could put your favorite Netflix show on and do sets of exercises, not this is critical not to failure.

([00:24:32](#)):

You want to stop five reps short of failure. So you do your strength work and you know what you can do. Let's say it's the black band and you can do it 20 repetitions. Well, that's your strength work. But then when you switch gears to volume, which is what you do for the rest of the week, then it's just like, okay, I can do let's say four or five sets or maybe 10 sets and I'm just going to do 15 repetitions instead of 20 because you're just trying to compound the blood flow into the muscle over and over and over again. And that's where the size comes from.

Dave Asprey ([00:25:03](#)):

So how many reps are you doing the failure reps, did you say?

John Jaquish ([00:25:09](#)):

It takes 20 repetitions to just go to absolute complete fatigue.

Dave Asprey ([00:25:13](#)):

Okay. And you do that how many times a week?

John Jaquish ([00:25:15](#)):

One.

Dave Asprey ([00:25:16](#)):

So once a week you blow yourself out basically.

John Jaquish ([00:25:19](#)):

Right.

Dave Asprey ([00:25:20](#)):

Okay. And then the rest of the time you're doing five reps short of blowing yourself out and you do that every day?

John Jaquish ([00:25:26](#)):

No. So I can do it. What I'm doing right now is six days a week, but I split the body three ways. So I do push upper body pull, upper body and then legs. That's how I split it.

Dave Asprey ([00:25:39](#)):

Got it. And this is an average of how many minutes per workout?

John Jaquish ([00:25:43](#)):

Oh geez. I mean the actual time under tension might be like six minutes per workout. Six

Dave Asprey ([00:25:49](#)):

Minutes and the time is there a rest between each set?

John Jaquish ([00:25:52](#)):

Yeah. Yeah.

Dave Asprey ([00:25:53](#)):

Okay. So then what's the total time? What's resting and doing

John Jaquish ([00:25:56](#)):

It? Well, it depends. I tell people do as much volume as you can do that fits in your life.

Dave Asprey ([00:26:01](#)):

People will say that what you're saying is too good to be true. And I get this all the time, dude, I have a franchise with 27 locations and more signing up and we have all this data and we're showing that it works, but it's not supposed to work, therefore it doesn't. And what you do saying, what do you mean you're not blowing discs out with 16 plates on each side of something, therefore it doesn't work. And the reality is curiosity is okay and it's okay to be wrong. I've shifted some of my nutritional strategies from when I did 10 plus years ago. I think I'm directionally accurate on it. And we all learn. And you may decide tomorrow that six reps instead of five away from failure works better and then you'll just change and it won't mean you're a bad person. Bottom line, and this is just for people listening.

([00:26:53](#)):

John has real science and we're going to talk about stuff in the journals, strength and conditioning research and other things like that. But you see so much garbage out there, some of it funded by big pharma and there's organized trolls for animal rights, terrorist groups trying to get you to be vegan. There's probably some farmers group trying to get you to be carnivore that's behind the scenes pulling puppets. I doubt it, but who knows? The bottom line is how do you know if something's trustworthy? Sometimes journals help. I think they do. But you got to look at the people who're talking about it and the results they're getting with themselves in their communities. And I've seen some pretty impressive results, why it works and how it works. And frankly, your biceps look like they're doing all right now.

John Jaquish ([00:27:37](#)):

Doing all right.

Dave Asprey ([00:27:39](#)):

I got to ask you this though, and this is something that's kind of tortured me. We've all seen videos of shalin monks and they're doing one finger push down and they're doing these incredible feats of strength and they're small. Why are they so strong when they don't have the bulk that you or I have?

John Jaquish ([00:27:58](#)):

There's three ways to make a muscle bigger and there's four ways to get stronger. So what they're focusing on is the way to get stronger. That doesn't make you bigger, which is neurological, getting more muscle to fire at a faster rate. Most people when they contract a muscle, it's maybe low percentage, 30%, whatever of the actual mechanical tissue available is recruited. So like a gymnast, they're great at getting almost the entire muscle to fire in anything they're doing with intention. So not necessarily reflexive, but more is recruited in their reflexes also, which is why they have such incredible balance. So the shalin monks, they also very, very carefully restrict their eating. You never see obese showered monk,

Dave Asprey ([00:29:03](#)):

That's for sure.

John Jaquish ([00:29:04](#)):

Very, very small amount of calories, very high level of potentiation and the muscle that they are growing, they're not getting a blood flow effect. They're doing mostly what X three does, which is muscle protein synthesis. So they're just building sort of lean, powerful muscle as opposed to a larger muscle that's capable of longer sustained contractions that's sort of more like a bodybuilder,

Dave Asprey ([00:29:33](#)):

But they don't get the bulk. Part of what I do is I read your stuff and I look at modern things, and I also look at old, and a lot of these guys are practicing something called Ni Gong, which is sort of the redheaded stepchild of Qigong. And they teach that there's ligaments and tendon strength, that there's muscle strength and that there's something they call interstitial strength or Wong. And I don't exactly know what that is, but maybe that's the neurological stuff you're talking about. It's some other factor that we don't look at in modern exercise science, but maybe what those shall and masters are doing is definitely tendon and muscle and bone strengthening and neurological strengthening. So like you said, they fire everything so they don't need as much. That would be more like driving a lighter car. How do I get that? I want to be stronger than you with 50% of the muscle mass that you have.

John Jaquish ([00:30:37](#)):

I mean, it's like lifting incredibly slow does that. So real slow contractions with the X three, so I'm moving like molasses like three seconds up, three seconds back kind of thing. You're recruiting more tissue. So the analogy I like is when you draw a line on a piece of paper, if you do it fast and not a straight line, it's easy. If you do it slowly, your hand aches, it's because of all the stabilization firing that's required to enable you to draw that line straight. So all kinds of reflexes are firing to keep that pencil in your fingers and drawing a straight line and all kinds of feedback information is being used from your visual

interpretation of what's happening on the page and the mechanical feedback, what's going on in your hand. So you draw a straight line really slow and your hand just like, ah, why is my hand ache from drawing a line? Well, much more muscular involvement.

Dave Asprey ([00:31:47](#)):

So really slow movement. That's something in my last book, smarter to Arter really, really slow, especially eccentrics makes a difference. When you're using the new X three bar that you came out with, with the digital measurement, it must track the speed that you're lowering the bar and how's the feedback work on that to encourage people to do it slower or faster.

John Jaquish ([00:32:15](#)):

So it's sampling multiple times per second.

([00:32:19](#)):

So what you're competing with is the total force you create. If you're doing crappy fast repetitions like that or just pushing out, letting it snap back on you sort of thing, the aggregate number is going to see that you're hanging back in. The easier part of the motion, you're spending a lot more time back there than you are in the loaded position. So then you're going to have a lower total force. Now once you learn how to do it right and you go slow and controlled contractions, that number starts jumping up. So you always want to be beating that number. That's progressive overload. So by looking at that total number, and I mean it's precise. When I do a chest press, the aggregate number of pounds that's collected is 20,000. So I can, if I'm at 19,900, I know I've got to do another maybe half a repetition to beat my previous best.

([00:33:24](#)):

But then that's a trigger for growth. And when you have the data in front of you, you said it's so motivating, most people, they may only have a few workouts in their life where they actually get stronger and they are able to realize it and perform a greater level of force and then trigger growth. Again, it might only be a handful of times because most people have no view of this and repetition counting is not it because you can do, I see people when they start training, they might do 10 reps on a bench press with a certain amount of weight and then two weeks later they're doing 12 reps, but they're doing 'em faster. So they're actually doing less work by doing the 12 reps than with the tent. So are they getting stronger now? They're not. And with this you absolutely know every time, and if you waited the proper amount of time and you had the proper amount of protein on your days at your training, you will notice you'll beat your number almost every time. And that that's what happened to me over the course of 2023 in my 14 hours of exercise.

Dave Asprey ([00:34:39](#)):

Man, it's tough. 14 hours, almost two full work days. Let's talk about diet for a minute. You seem like you're kind of a carnivore ish sort of guy these days. Where are you on the spectrum of protein, source of protein, type of fat, frequency of carbs? It's

John Jaquish ([00:34:55](#)):

Funny, I was going to ask you the same question. So not everybody sees this, but Dave and I were just hanging out at a conference and you shredded, like you said, you're like 5% body size.

Dave Asprey ([00:35:09](#)):

It's insane for being where I came from, the veins and stuff. I don't know. It's on YouTube. This

John Jaquish ([00:35:17](#)):

Video is not doing any justice. You look, there you go.

Dave Asprey ([00:35:20](#)):

It's weird. You

John Jaquish ([00:35:22](#)):

Look like an anatomy chart, man.

Dave Asprey ([00:35:23](#)):

Yeah, it's awesome. I'm not displeased. We'll put it that way. But yeah, I like to think biohacking works when you keep adjusting over time. So first, tell me what you're doing because you look like a balloon animal.

John Jaquish ([00:35:36](#)):

Actually I'm more in what you're doing because I think you're closer to the right answer. But yeah, I mean, I'm getting one gram per pound of body weight in quality protein. So either meat or fermentation

Dave Asprey ([00:35:51](#)):

Meat or fermentation. What are you fermenting?

John Jaquish ([00:35:55](#)):

So I have a supplement called,

Dave Asprey ([00:35:58](#)):

Okay, so basically central amino acids. Amino acids, okay, got it. So you're doing either protein or amino acids that have an equivalent amount of protein. And the difference for listeners, if you eat a steak or a whole protein, about 30% of it, of the calories in it go into breaking it down. If you eat the amino acids that happen after it breaks down, they're fully absorbed and you need far fewer of them, you need less calories. But as long as you're getting the amino acids at the end of it, there's benefits. There's probably also some metabolic signaling in the gut from eating protein that's probably beneficial, but we don't know.

John Jaquish ([00:36:38](#)):

What

Dave Asprey ([00:36:38](#)):

Do you do for carbs?

John Jaquish ([00:36:39](#)):

I try and stay under 15 grams a day.

Dave Asprey ([00:36:43](#)):

Wow. And that works over time for you, okay.

John Jaquish ([00:36:48](#)):

I mean it does, but I'm going to ask you the same question. What do you do?

Dave Asprey ([00:36:52](#)):

You're not going to like my answer. It's funny, but first I want to get yours.

John Jaquish ([00:36:57](#)):

Wait, hold on. I mean, I'm a scientist. If there's a better answer, somebody can tell me, putting cramming cauliflower in my ears is going to make me bigger and stronger.

Dave Asprey ([00:37:06](#)):

You see me

John Jaquish ([00:37:06](#)):

Doing this all the

Dave Asprey ([00:37:07](#)):

Time. I'll be a gravel arian if it works. I don't even care what tastes, I am willing to do anything. It's better and it's

John Jaquish ([00:37:13](#)):

Proven great.

Dave Asprey ([00:37:15](#)):

Even if it's not proven, I'll probably try it if it's not going to kill me, and I'll prove it myself if I have to because the most interesting things aren't proven. They just work, right? Yeah. Now, so first you got to tell me fast type of fat, amount of fat. Where are you on that?

John Jaquish ([00:37:28](#)):

Most of the time? I'm one meal a day. It's pretty much like a two and a half pound ribeye is what I eat every day.

Dave Asprey ([00:37:37](#)):

Nice grass fed or not?

John Jaquish ([00:37:40](#)):

I try to, if I'm on the road, then if I have to go to a Texas Roadhouse,

Dave Asprey ([00:37:45](#)):

You lift every day. You're doing oma, you do cold therapy and stuff too,

John Jaquish ([00:37:49](#)):

When I can,

Dave Asprey ([00:37:51](#)):

Not regularly, but you also

John Jaquish ([00:37:53](#)):

Cry chambers are not, they don't do it for me, I like a cold plunge.

Dave Asprey ([00:37:57](#)):

Okay, where's your cortisol?

John Jaquish ([00:37:58](#)):

Well, it depends.

Dave Asprey ([00:38:01](#)):

It does change every day. Who would've thought, right?

John Jaquish ([00:38:03](#)):

Yeah. Yeah. I mean it can go decently high if I'm,

Dave Asprey ([00:38:09](#)):

It's not blown out low.

John Jaquish ([00:38:12](#)):

No.

Dave Asprey ([00:38:12](#)):

Okay, awesome. What I've found over time is when people go following some of my recommendations, you can always overdo something. I'm like, do it when your body needs it. And they'll like, I'll do it every day. I found that for most guys, if they do OMA that one meal a day, so they're doing relatively long intermittent fasting and they're doing keto without a break that they usually about six, eight weeks, they start seeing cortisol levels go up and up, which feels good at first because cortisol and adrenaline are energy sources. But then you start waking up and you're like, God, I didn't sleep well. This happened when I did three months of what we would now call carnivore when I was stress testing the edges of the bulletproof recommendations. And so you're like, God, my sleep quality just went to hell and your sleep score is no good. And then you wake up without a kickstand and then your hair gets a little bit thin. These are all high cortisol things.

([00:39:07](#)):

That's one of the reasons why my recommendations were maybe you should cycle in and out of ketosis. Also, SHBG goes up on a keto diet over time. And so that was my one hard thing with the bulletproof stuff is why is SHBG so high and green tea extract, EGCG will lower it to a certain extent. So well having some carbs already. So I went back and forth and I've been tweaking and testing forever. So I'm a little bit of a long story to tell you what I'm doing, but I want listeners and you to understand the order of

operations of my thinking and why I did it and have done it the way I do it. And by the way, there's a brand new website, dave asper.com just came out and if I've reorganized all the information, there's 3000 blog posts and 1200 episodes. There's a lot of info just to make it easier to find stuff. So go to dave asray.com to see all that. But in Superhuman Longevity book, there's a cluster of data that says 0.6 grams per pound of body weight might be associated with longevity, but all the studies don't look at the quality of the protein. That's

John Jaquish ([00:40:14](#)):

Right. A lot of them use shit quality protein by whey. Whey is trash.

Dave Asprey ([00:40:20](#)):

Well, whey is better than soy.

John Jaquish ([00:40:22](#)):

Yeah, I wouldn't even consider when somebody says vegetable protein, it's like that's not protein throw away.

Dave Asprey ([00:40:30](#)):

I'm with you there. And also, gluten snake venom and nerve gas are all plant-based. Well, they're all proteins, either animal or plant-based. So it doesn't matter. You don't want to just eat a protein diet unless you know what protein is. So I'm going to assume available animal-based proteins. Those are what work. And where we run into problems is that if you want longevity restricting the amount of certain amino acids like methionine and tryptophan are important because those change your gut microbiome for some studies and because they also basically accelerate some aspects of aging via something called mTOR, which is not even that bad in some circumstances. Very technical sentence. And if you didn't follow that, guys, just hang on for a second. I'll explain it all to you. So that's 0.6. But there's also abundant research that says people are healthier metabolically, which means you'll live longer if you eat one gram per pound of body weight.

([00:41:27](#)):

There's also another set of data that says 0.8 grams and one gram of protein per pound of body weight are identical in outcomes. But I don't see that. So here's what I've been doing, and a lot of people are like, do tell, do, tell. Okay, number one, I have formulated a new kind of protein and I will probably launch it. It's all, but it's not something that you would find today on the market. So I think that's part of it. I optimize my type of protein, but I just did the math. I need 200 grams of protein. If I'm doing only two meals a day, that's a hundred grams of protein per pound of body weight. And all the studies until two weeks ago said, you can only use at most 50 grams of protein per meal. And I thought to myself, that sounds like a whole lot of bullshit because yeah, and

John Jaquish ([00:42:25](#)):

There's a great study that came out about three weeks ago that exactly,

Dave Asprey ([00:42:28](#)):

And that study showed, well, it's one of the reasons that what I've done for the last two years worked. I tend to do stuff and figure out it works. And then there's a study, I don't know why, but the same thing happened with C eight MCT oil and



John Jaquish ([00:42:38](#)):

Well, that's also part of the reason why one meal a day works.

Dave Asprey ([00:42:41](#)):

Yeah, it is. And one meal a day, you have to eat more than 50 grams of protein. Otherwise you'd look like Bill Gates. Why?

John Jaquish ([00:42:48](#)):

Yeah. He's just like, well, I don't need really anything except for fat and protein. So yeah,

Dave Asprey ([00:42:54](#)):

I would. The thing is I do now, and I was doing this with just fat and protein and I got crazy lean to the point. I'm like, all right, there's no reason to limit carbs. So what I do now is I do one gram per pound of body weight. I have no problem with a hundred grams of animal protein per meal. And the study that just came out says, there is no upper limit for protein and you just make muscle for longer periods of time. So I might do two meals a day on an average day, sometimes three if I'm feeling lazy about it, but I always get at least 200 grams of protein. I always take enzymes with it. If you're listening to this and you're going to do it, if you fart death, you did it wrong. And if you do it regularly, you'll probably die. If the old bodybuilder, the gyms would smell like crap too much protein makes ammonia, which wrecks your metabolism. If you have enzymes and stomach acid, you won't do that. You'll just absorb it. So what I've been doing is I've been absorbing protein, a lot of it, and I'm a little concerned about that. So I've been looking at my den pace, my rate of aging to see if all this stuff, it hasn't changed meaningfully. So what I'm seeing is that this works.

([00:44:05](#)):

There's something that you've talked about in your videos that maybe 20 years ago I would've thought, that sounds like a lot of bullshit.

Tony Horton ([00:44:15](#)):

Yeah, it might've been a little bit, might be

Dave Asprey ([00:44:19](#)):

It's muscle confusion.

Tony Horton ([00:44:21](#)):

Well, it's a made up turn. We made that term. Yeah, Billy, I trained Billy. Billy used to call me Muscle Confucius, and the CEO thought that was funny. He goes, let's call it muscle confusion. I go, what? It's just, I mean, jackal had periodization training, muscle confusion. Even Arnold likes to give me crap for that

Dave Asprey ([00:44:41](#)):

Muscle confusion. I think it's actually brilliant now that I know what I know about the brain and neural adaptation and some of the latest science in how to create change in biological systems. What the idea is, is that if you change your workout routine regularly, your body won't adapt and you'll continue to grow. Maybe there's something about individual body parts adapting, but I think the genius of it is what

it does for your brain because exercise makes the brain better. And when you do exercise that is uncomfortable for the brain because it didn't just do that, it makes the brain stronger. It makes myelin sheath thicker. And it's one of the reasons that I started playing ping pong, my dear friend, Dr. Daniel, a Amen from a Amen Clinics on his board of directors. Now, after years after he helped me without knowing me, he said, Dave, get a ping pong table. I said, all right. And the idea there is you're going over here, you're crossing over the center line, and some people call it cross-training, but you were an early adopter whether you made it up or not. But I think it creates anti-aging, neurological effects in the brain to not do the same thing every day.

Tony Horton ([00:45:53](#)):

Well, it comes down to the boredom and injuries and plateaus that stop most people in their tracks, right? Yeah. So I mean, if there's a lot of variety there, it's like, oh, this is more interesting than just, I mean, the old days, I would do chest and back for two hours and I'd get on the stationary bike for 45 minutes, and then I would do legs the next day, get on the bike for 45 minutes and I'd do shoulders and arms get on the bike. And so when I was training all these rockers like Billy Ile and Tom Petty, Bruce Springsteen, I said, we got to get a heavy bag. We got to do Pilates, we got to do yoga because they got tours to get ready for and they've got fancy lifestyles, and they liked that. And I noticed it was working for me in the gym.

([00:46:31](#)):

I'm going to do yoga today. I'm going to do Pilates today. I'm going to go to the aerobics room because that's where all the women are. And it was very, the reason why, and then I just want to pound weights. Oh, you know what? I'm just going to do body weight today. You don't want 'em go to the track. And so the CEO said, can you recreate those types of workouts that you do for yourself and for all these celebrities and do it in front of a television? I said I had to pull up bar and some bands and some dumbbells because I was always trying to work on their weaknesses as much as their strengths, just to keep them interested, you know what I mean? And keep them from getting hurt and seeing results over time. So he came up with muscle confusion and it kind of describes what we were doing.

Dave Asprey ([00:47:11](#)):

It's a good thing. And one other thing I've got to give you credit for, I just wrote a chapter in my last book on biohacking about putting on muscle and all the different technologies that work better than picking up rocks, which is kind of what we're lifting is we concentrate on the rocks now. And one of them is bands because the type of resistance that a band gives your body is foreign and it actually confuses your muscles. And you more than anyone else, have popularized bands. And they are provably more efficient at building muscle than picking up weights. I'm not saying you shouldn't pick up weights

Tony Horton ([00:47:45](#)):

Without injury. Without injury too,

Dave Asprey ([00:47:48](#)):

Because there's

Tony Horton ([00:47:49](#)):

A better concentric with bands than there are with dumbbells.

Dave Asprey ([00:47:53](#)):

Yeah. Nailed it. So it is cool. You've got some things that I would label early biohacks that you evolved into because you did all sorts of things and all this. What about hormones though? Do you measure your hormones? Do you know your testosterone levels?

Tony Horton ([00:48:08](#)):

I do. I know my testosterone and my free testosterone. I get my blood work. I just did it last week and I'll probably sit down with my endocrinologist slash nutritionist and we'll talk about those numbers and test. I don't take anything for it. I don't. I

Dave Asprey ([00:48:23](#)):

Was going to ask you that next.

Tony Horton ([00:48:25](#)):

It's between seven 80 and I've gotten as high as a thousand plus,

Dave Asprey ([00:48:31](#)):

And you can do that at 65, which is so unusual. We have an epidemic even among, he keeps

Tony Horton ([00:48:36](#)):

Saying, it's like, you sure you're not taking anything? Oh man, protein powder twice a day and training hard in recovery,

Dave Asprey ([00:48:44](#)):

Getting enough quality protein helps so much the right fats. And I managed to get mine up to seven 50. I've been on testosterone since I was 26. I had lower testosterone than my mom, and I was really unhealthy. I had mold toxins that estrogenic and a lot of problems. So I went off of it for about three years when I was testing out my first big diet book just to see what I could do. And if I did everything perfect, I could get to seven 50, but I feel much better at nine. And so I supplement, I inject once a week and I keep my doses around nine or my levels around 900, and it works. And I just encourage everyone listening, man or woman, if you don't know your sex hormone levels, no matter your age, you're just missing out. It's cheap to get it done.

([00:49:27](#)):

Now you can do it at home and then your baseline. And if what you're doing works, if you're eating the Cheetos and Diet Coke, a vegan diet, which some people do, well, I'm vegan, it must be healthy, you're testosterone is going to be in the shitter. And then you'll know. And then you can say, well, maybe what I'm doing doesn't work, and maybe they'll add some more protein or they'll get better sleep or the things you're talking about. But I am so impressed, most guys at 65, even with a great regimen with the experiences that the stuff that worked two years ago just doesn't work, no matter how they push harder, but the muscle won't grow. And it's the anthrop pause thing. And so whatever the combination of meditation and sleep and work and exercise or happiness and community, whatever you're doing, you're a far outlier to have levels that high because most 30 year olds don't have levels like you do.

Tony Horton ([00:50:16](#)):

I know it's bizarre, and I am an outlier. I suppose I am an anomaly in that respect. But I mean, keep in mind, except for being sick with Ramsey Hunt and Travel, I haven't missed a workout in 35 years. I mean, when I first started climbing, when I was P 90 X guy, I couldn't climb a 15 foot rope. It's like, oh, ow. That hurts my hands. Like, oh, my forearms are pumping up. I can't even open my hand. And so I went, oh, okay. I'm terrible at this. Let's keep doing it. Let's get away from the weights a little bit and start climbing some ropes. And then I went, I had a peg board in junior high school and I couldn't pull one out without crashing. So I made two of them. I got two of them on my property and none of us could do them.

[\(00:50:59\)](#):

We were all terrible because it was just a completely different movement. But I mean, it's more muscle confusion right now. I go around the pegboard like I'm on the moon only because 17 years later, doing it twice a week mixed in with all the other things that I do, just, oh, we can go to the top. Let's see if we can go to the corner. Let's see if we can go to the corner and down. Let's see if we can go to the corner down and here. And then we go up over down and back. I and I sing the national anthem when I do it just to be a wise guy. And I'm older. I got this pegboard 17 years ago, and I can do it better than ever. I mean, all that behavior plus the recovery plus the infrared song up plus the foam rolling, plus those naps and the meditation, and I don't have kids. I mean, a lot of my friends have kids. There's a bunch of extra energy in the house that kind of sucks their life out of them. Sometimes it makes it harder for them.

Dave Asprey [\(00:51:54\)](#):

Oh, that's why your testosterone is so high. You don't have kids, so you have a life of quiet luxury. I see what I've been doing there, Tony.

Tony Horton [\(00:52:03\)](#):

I let my pendulum swings very far in both directions, man, when it comes to chilling and relaxing and hanging out underneath the awning and just enjoying some lemonade, I love it. Sleeping in, sign me up. You know what I mean? I know what I need it, so I do it. I'm not afraid. I don't judge the fact that sometimes I'm just effing off. You know what I mean? I understand how my body's reacting to that.

Dave Asprey [\(00:52:25\)](#):

And then you change what you're doing for that day, which is what everyone can aspire to, is just, oh, it's not that I'm feeling lazy. It's that something's not working right. But sometimes you are feeling lazy. And to just learn the discernment between those two states has been really important. And there's a lot of shame out there too. I talk about how I want to get exactly the right amount of exercise to feel and look a certain way, but I'm also really busy with multiple companies and writing books and all that stuff. So somebody like, well, you're just not willing to work hard. And I'm just like, should we compare abs? Because I'm 8% body fat and I probably can crush you in my grip. So it is like I'm super willing to work hard, but I don't want to work hard to feel amazing and to do the things that matter. And it seems like you've gotten to that as well. We're like, today isn't the day to push really hard. Today's the day to recover hard and then push harder tomorrow.

Dave Asprey [\(00:53:24\)](#):

Nikki Bella was on the show *Celebrity* and also professional wrestler, and she described exactly that life, but it was very similar to what you'd hear. Even from Third Eye Blind. I've worked with those guys, been backstage with him or Pink Floyd, Roger Waters, they get beat to death by the road, plus all the breathing that they're doing. And I never paid much attention to that until Steven Jenkins just said, now here's all my breathing that's planned out ahead for a show. And I was blown away because it's a

different kind of endurance athletics with minimal recovery, almost like doing endurance event every day and just traveling around doing that. So you ground down. But I wanted to ask you, so I mean, here we are, you've got these nice big guns and everything and you're training these people to look really good, but everything I know about training says that recovery is as important as training. And these guys are minimizing recovery. How do you get around that?

Magnus Lygdbäck ([00:54:27](#)):

Well, when you film a movie, it's really hard because then you have 14 hour days when it's all in, it's all physical, and then you have a short turnaround. That is a challenge, lemme tell you. So you do whatever you can. But same thing with an artist when you're on tour, it's all about finding those spots. When should I be eating? Can we get a break here to do some get an hour at the spa with some ice bath and Asana?

Dave Asprey ([00:55:00](#)):

So you recommend that to your clients as well as the

Magnus Lygdbäck ([00:55:03](#)):

Exercise I do. For me, it's about creating good habits as well. Let's say when you're on tour, your schedule is created for you to take you from city to city to do radio promo and to do shows. There's nothing in there that is about you and your wellness.

Dave Asprey ([00:55:26](#)):

None at all.

Magnus Lygdbäck ([00:55:27](#)):

Nothing at all. Nothing to really look, what do you need? So if Katie Perry's got a show for 20,000 people at 8:00 PM I look at when should she be waking up? What type of workout should she be doing during the day to optimize the performance at night? What is she doing three hours before a show, one hour before the show, or even 20 minutes? So traditionally it's all been warming up the voice, doing a sound check, sitting in the locker room. But I'm big about looking at the details. What do I do to optimize myself to perform? So when I get on stage, how do I know that I've done everything I can physically and mentally to be at my best? And what do you do after when you get off stage?

Dave Asprey ([00:56:18](#)):

I think you're supposed to go out for drinks and make out with fans. At least that's what I've seen from the rock stars I've hung with.

Magnus Lygdbäck ([00:56:25](#)):

Well, we'll do that for three weeks straight. I know, right? And see how wreck. So when I got thrown into that world, I realized I need more tools. So that's when I got into the lifestyle coaching, nutrition, and really starting working on how I can help someone with structure and optimizing in, get habits out with bad habits. The training's just a little part of it.

Dave Asprey ([00:56:54](#)):

I love that you're saying that I went through this period when I weighed 300 lbs when I was younger, and it's all about the training. So I said, I'm going to go a low fat, low calorie diet. I'll work out an hour and a half a day, six days a week, a half weights, half cardio, and I'm going to do it no matter what. And 18 months later, I was still the same weight. I was stronger, but I was still fat and it drove me nuts. But well

Magnus Lygdbäck ([00:57:15](#)):

That cardio 200 calories burnt on the treadmill that 30 minutes and they will not, that cinnamon roll that is 850 calories,

Dave Asprey ([00:57:27](#)):

They don't match. No, you can't pay for pizza on a treadmill. No, no.

Magnus Lygdbäck ([00:57:30](#)):

Comes down to nutrition. Yeah. When it's about weight loss.

Dave Asprey ([00:57:34](#)):

Ah, I love hearing celebrity trainer say that because if someone had just told me that when I was 16, I would've just focused on my food instead of just beating myself up in the gym. Right. So how do you know, or how would someone listening know, okay, I want to change my diet, but I still should train some amount. So for a mere mortal who maybe doesn't have to look like Gal Gado, it don't have to be one or something. What's a normal training frequency? Well,

Magnus Lygdbäck ([00:58:03](#)):

Let me start by addressing training and nutrition. I always get the question, how much is training? How much is nutrition? Is it 50, 50, 60, 40? Just know that you shouldn't even talk about nutrition and training in the same sentence. You need to get on top of your nutrition and on top of your training both in a balanced way. So what I would recommend to someone who wants to start that journey is to not be too hard on themselves. We tend to go from zero to a hundred or going to extreme and then you are good for a week and then you fall off the wagon and you set yourself up for failure. So a system that I use a lot is my 17 out of 20 method, which is bulletproof. You cannot fail. You never fail. You don't need to feel like a failure ever. So if you eat 20 meals, I want 17 out of 20 to be on point.

Dave Asprey ([00:59:07](#)):

Cool,

Magnus Lygdbäck ([00:59:07](#)):

Three out 20, enjoy life. Even

Dave Asprey ([00:59:10](#)):

It like eating complete garbage or just a little bit. Yes. See I have a hard time with that. I used to do that cheat days, right? Kind of a similar thing. Treat days or treat days, I'll still do that, but on a treat day, fine, I'll have some extra sugar that day, but I'm not going to eat the Twinkies, right? I'm not going to eat hydrogenated fat, I'm not going to eat gluten. I know I'm going to have cravings for three days afterwards and it's going to lower my energy. So how do I feel?

Magnus Lygdbäck ([00:59:34](#)):

Okay, the next for treat day, I'm like you, but most people aren't. So, okay, fair point. What I've realized after 20 years plus is that you need to come up with a system that where people don't feel like they're failing as soon as they make a mistake. So if people really want that twine, they can have it. It's not going to be the greatest thing. Yeah. Sugar's terrible for you and it messes with me for days, but at least there's a plan, a plan of after that twine that I know that, oh, I need to get back to my 17 clean meals.

Dave Asprey ([01:00:15](#)):

So it's not about perfection because perfectionism kills everything and a lot of people say, I failed on the diet, therefore it's just all Twinkies. Correct. And you've gotten rid of that with the Magnus method.

Magnus Lygdbäck ([01:00:25](#)):

So if you're too extreme one twink and it's over, oh, I failed. Same thing with training. If I'm supposed to be training really hard six days a week and I don't have it in me and do five, I failed. So I think that you should start, first of all, look at training holistic. I am involved in all these extreme makeovers. I build these superheroes for the big screen, but I preach balance. And I think that you should look at training from a much more holistic perspective. Look at three things. One, what do I like to do? Number two, what does my body need? Number three, what do I want to master or get better at? Many times those three things are different things and might be the same. That should create your weekly programming. So for me, strength training is my number one. Meditation yoga is my number two, I need it. My three is Brazilian. I don't enjoy it every time. I have to admit I'm getting my butt kicked. But I love the art form and I love to get better at it. So the beautiful thing about that, once you have those three figured out, you can actually make all those benefit each other. So I can do yoga pose is that benefits my Brazilian jiu-jitsu human strength training that benefits that. So I think that's the way it should approach it.

Dave Asprey ([01:01:59](#)):

Okay. So you look to get benefits across multiple goals by just picking this up. So it's high return on investment for the minute you spend exercising? It is funny. So I don't have the schedule of rockstar where it's every night, but I've been through weeks where I'm doing four main stage presentations in different cities actually quite often. And you're going to go in front of 15,000 people on Tony Robbins stage or something. I would never wake up and do a heavy lift. Right? Because I want to bring the energy to the audience. I'm not going to waste it on plates or something, but I'm going to go for a walk and do some stretches or meditation or something. So I've got blood flowing, but I'm not actually already burning out what I'm planning to share with the audience. Right. Smart. Smart. Is that kind of a similar recommendation to what you're doing?

Magnus Lygdbäck ([01:02:48](#)):

Correct. So that lift, that session might've been if you and I would work together, we would probably do that the day before and then on the day of, we would do something that helps you to take up the oxygen, like a couple of high intensity into all couple of sprints, a couple of sprints stretching, opening up, optimizing airflow in the lungs.

Dave Asprey ([01:03:14](#)):

Do you do specific breathing exercises with your clients?

Magnus Lygdbäck ([01:03:17](#)):

I am not an expert. What I do is I work with a lot of isometric exercises to open up your lungs and to line your spine. You see your spine is a postural muscle. It's always activated. You don't choose to activate it, so you need to work it in a different way to reprogram it, you need to work isometric more than six seconds. So I do isometric work on the spine to reprogram you so you have a better posture and a better airflow.

Dave Asprey ([01:03:50](#)):

So when they walk on stage, their posture is perfect and isometrics. Some people listening may not be into training, so that's when you're pushing against a force that doesn't move. So basically standing against the wall and pushing as hard as you can knowing it's not going to move. Correct. Okay. And so you have people lean back and push their head back against the floor kind of things? That's

Magnus Lygdbäck ([01:04:10](#)):

One of my favorites. And I think that when me or my clients are traveling, when you're traveling a lot, you can do that and when you're sitting in your seat on a flight as well, just push back your spine, flatten out your neck. So that's a good one that I recommend just to reprogram your spine because we're born this way and we die this way. So we constantly got to remind ourselves to be up here.

Dave Asprey ([01:04:41](#)):

What kind of gear do celebrities travel with and do they have resistance spans? Do they have magnets? I have no idea.

Magnus Lygdbäck ([01:04:47](#)):

Depends. Depends. So we could do workout in here. I'll always find something. I do lamp curls. Lamp curls. We could do pull-ups underneath the table, can do planks. We can use the cushion to do stir the pot. I have training bands that I like to send with people. So I have two different kits like minivans and super rubber bands that I used a lot.

Dave Asprey ([01:05:17](#)):

I find those are really convenient for travel. They don't wait very much.

Magnus Lygdbäck ([01:05:20](#)):

Correct.

Dave Asprey ([01:05:21](#)):

How about blood flow restriction? You ever mess around with that? I have. What do you

Magnus Lygdbäck ([01:05:24](#)):

Think? I tore my bicep couple of years ago and in my rehab I did

Dave Asprey ([01:05:29](#)):

That and I did an episode a while ago on that with the guys from Bistro and it's, it's really interesting. I you put these bands on and you don't that restrict but don't fully restrict blood flow and you don't have to have much weight and you just grow muscle. It is kind of ridiculous.



Magnus Lygdbäck ([01:05:45](#)):

Yeah. So I'm not an expert when it comes to the science, how backed up by science if it works or not. But a lot of people are swearing by it and it looks like it is really beneficial and that's good enough for me.

Dave Asprey ([01:05:59](#)):

I may or may not have done that yesterday. I was doing a bunch of filming and also in the morning I brought my bands and I pumped 'em up and for about two days afterwards there's an inch more blood flow, so at least you're getting a pump. But the science that I've seen shows via something called HIF one Alpha. It actually is growing more blood flow and by changing lactic acid levels. So it is growing more muscles. So fantastic. I'm a believer, but you can't exactly restrict blood flow to your butt and at least 51% of our listeners, how do I get bigger muscles in my butt. So tell me, Magnus, what is the secret having junk in your trunk?

Magnus Lygdbäck ([01:06:42](#)):

Well, the key if you want to build great glutes is to work all three glute muscles, first of all, and not just the big one. I think that you should work all the muscles in your body about two times a week, anything from one to three times, depending on the load and how many sets. But if you want to develop a nice glute muscle or bicep, I would say one and a half times per week is pretty ideal depending on the muscle group as well. Anything from nine to up to 18 sets.

Dave Asprey ([01:07:20](#)):

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