



Conscious Life presents

How To Age Powerfully

Guest: JJ Virgin

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[00:00:09] Dr Anu Arasu

Hi, everybody. I'm Dr Anu, co-host of the Hormone Super Conference. And today I'm joined by JJ Virgin. JJ is a board certified nutrition expert. She's also a four times bestselling author, New York Times bestselling author. She's also launched three multi million dollar businesses. She's very prominent on TV and in the media, her [YouTube channel](#) has had millions of hits. And her podcast, [Well Beyond 40](#), has had well beyond 40 downloads. Welcome, JJ.

JJ Virgin

Good to be here.

Dr Anu Arasu

So, JJ, you are an example of this. You are living proof. Tell us how to age powerfully.

JJ Virgin

I'll tell you something funny. I just turned 60 years old and I got so fired up for my 60th birthday. It was April this year, this past year, which is important, because if you look at the research, there was a study that came out that showed that if you had a positive mindset around aging, you lived seven and a half years longer. And I go, all right, well, instead of approaching this, like, "oh, my gosh", I was like, I'm going to approach this and go, "I'm going to get in the best shape of my life." And I'll tell you a funny story. So my husband will do everything that I do, so I bring him along.

And I think for the women listening, you kind of get that. I always say, the woman's the healthcare CEO of the family. Like, we're going to be the ones... Even though my husband cooks, we're the ones kind of figuring out what we're doing health-wise. So we go to get a DEXA body scan, and that's something that we've been doing for years for bone density, but we went in to do it for body composition because it will tell you your body fat, where that body fat is, your skeletal muscle mass.

So we go in and do this, and I wanted to get a baseline one, and then I was going to go and kind of rip it out. And what was fun was my baseline DEXA was exactly the same as the DEXA I did at 39.

So 20 years had gone by. I'd kept the same muscle, same body fat, which is crazy unusual. And I was just under 14... I was 13.9% body fat. And I'm very lean, I've always been a very muscular, very lean woman. I started lifting weights with the football team when I was 16.

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My hubby, however, who looks great, a little fluffy around the waist, but looks great, exercises, eats healthy, was 25% body fat. Now, men have only about 3-5% essential fat on their body. That's fat you need to have to survive. Whereas women have more in the 10-15% range. Men have more skeletal muscle naturally, 38% compared to women's 31%. So I'm looking at him, and I don't want to be the bad guy. Fortunately, I didn't have to be the bad guy, right, because the test said it.

So after we went through the initial, "it must be wrong". Well, it's not wrong. It's a DEXA. He got into action and finally did the things I'd been recommending and started tracking. And this is important because this is gender neutral, right? Like, first thing that I had him do was start tracking what he was eating, eating protein first. He increased what he was doing at the gym, made sure he got his creatine in. So some things we'll talk about. And he dropped 20 pounds of fat, put on 19 pounds of muscle.

The last time we did a DEXA, he was 14% body fat. I think we're going again because we're doing it as part of our new year plan. We're going to go get DEXAs again. And I think he's probably down at 10-11% body fat, and he's 59. And I say this... And, oh, by the way, I dropped down to 11% body fat, maintaining muscle. And I say this because there's this idea out there. It's like, oh, you're over the age of 40 or 50, and you'll never be as good as you were in your 20s.

What if we could just flip that, say, you know what? We have so much great information now, we can be better than we were in high school in our 20s and our 30s. We just have less margin for error, and we're going to have to work a little harder.

Dr Anu Arasu

That is incredible, isn't it? And the tracking part is the bit that I picked up there.

JJ Virgin

Everything. Yes. I was just reading some research on tracking because I think one of the first things... We've been using so many health trackers, and way back when, I had to track everyone by having them write down a diet journal. But I'll tell you what, being able to use a food app and a food scale and really get granular about what you're actually eating, that was such an eye opener for my husband, who would do, like, the healthy chips before dinner and then slather on the olive oil, and all of a sudden he's like, "oh, wow, I was really overloading that and not getting enough protein in".

And there is so much clear research that if you track, it's like the biggest predictor of diet success. Where I like to start with people tracking. And there's so many different apps out there. The one I like is Chronometer. It's free. I do the paid version, which I think is \$2.99 a month US. So, I mean, these are such inexpensive tools, there's no excuse. But I think if all you did to start was just track for a week, which if you do, you'll make better food choices anyway.

But to see what your maintenance calories are, right? So to see that piece, that would be step one. Step two would be to then optimize your protein intake and make sure that you're getting in a gram per pound of target body weight. And just do that. Replace some of your energy calories that come from fat or carbs with protein.

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I have a neighbor who's an amazing researcher. It's the only physique and performance lab in the world, Dr Bill Campbell, and he does a lot of research, especially on women, which is so unusual. I'm like, thank you so much. He goes, "I do it for my wife." I'm like, what a good hubby. You know, all he did was that, had people add protein in, kick out some carbs or fat, they lose weight. I mean, how easy?

Dr Anu Arasu

Yeah. And how do people do it, though? Because I guess one of the things I'm imagining people saying in their heads is there's only so much protein you can eat, only so much animal protein you want to eat. How do you do it?

JJ Virgin

So the way that I do it to make sure... Because I hear that all the time. How do you eat that much? I said, well, I just saw you put away a plate of pasta. The other things I'm seeing you eat tons of. And I don't know if you've heard about this hypothesis. It really is now much more of a theory, kind of more proven out there because they've shown it in locusts, then rodents and humans, is this protein leverage hypothesis. And what they discovered in this hypothesis is that we will overeat carbs and fat in order to get enough protein in our diet.

When you look at it, we can live without carbohydrates. We can't live without protein. We can't live without fat. If you're eating animal protein, you're going to get fat. So it's really the protein that's key. And so we have this mechanism to keep us eating and eating and eating until we get enough protein to survive.

So when you hear that, you go, what if I started out and before I ate anything else on my plate, I ate protein first. And the reason this is so key, there's a couple big important points here, but the number one point is studies showed that when people eat protein first, they actually make better food choices. They actually eat more non-starchy vegetables. Right.

The second thing that happens when you eat protein first is you're actually not hungry. I don't know what it's like over there in the UK. I'm betting it's the same as here, that GLP-1 agonist weight loss drugs are all the rage. And protein works as a GLP-1 agonist. Protein is the most satiating of all of the macronutrients, and it's also more thermic when you eat fat. Basically, it's very easy for your body to store fat. When you eat carbohydrates. It takes somewhere in the 5-10% range to utilize those carbohydrates or store them as fat.

Protein takes about 25% of those calories to go through the digestion and assimilation process. So even if all you did was keep calories the same, sub out some of the fat or carbs for protein, that is why Dr Bill Campbell showed that you would lose weight. Right. That simple thing. And I have this little protein challenge I put people through where I have them only do this because I like to focus

on one thing at a time. Because if you give people a ton of things to do, what do they do? They do, right? Nothing. Ask me how I know that.

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So when we did this, the number one thing people said to me was, "I don't have cravings anymore." Now, if you're not hungry, you don't have cravings, your chances of success are so much higher. If you're hungry and you're craving things like, come on, we're not going to pull that off.

So that's where I like to start with people, is just sit down and eat protein first, because I think people are saying, I can't eat all that protein. Because they sat down, they had some bread, they sat down at dinner, they brought the bread basket, they ate some bread, then they ordered their meal, which had starchy carb and vegetable, et cetera. Maybe they already had a salad and they turned the salad into a sundae because they had some fatty dressing with a bunch of croutons, right? I'm like going, you just had a fast food junk salad there.

And so by the time they get to dinner and now they're like, digging into the potato or pasta, then they go, I'm too full. Well, you didn't eat the protein first. So if we could just sit down and if you think about it, this is not a lot of protein. It's like 5-6oz, not much. If you can do dairy, you're not dairy intolerant, Greek style yogurt. I use bone broth protein, Greek style yogurt, an egg and egg white combo, grass fed beef, wild fish, pastured chicken. It's easy to get there. You just have to eat it first. So you make sure that you got that in. I say eat that first, then eat your non-starchy vegetables, do a little fruit, see if you're still hungry.

Dr Anu Arasu

That's a powerful one. And I mean for you then starting the day, for example, would you recommend that people use things like protein powders or that they can do all of this with natural food?

JJ Virgin

You can do it either way. I think we have to distinguish between ultra processed bad things and processed food that actually is convenient and makes it easier to stick with the program. And I think that a lot of the protein powders, not all, some of them are junk food, but a lot of them fall into that camp of it just makes it easier for us. I think one of the places people tend to blow it is at breakfast. And truly breakfast is the key important meal here, because you went to bed and post digestion now, you go into muscle protein breakdown when you wake up in the morning and you're going to eat about 2 hours after waking up, since your body has time to wake up.

You are still in muscle protein breakdown. In order to shut that process off and go into muscle protein synthesis, especially at the age 30+, right, you need enough leucine. This is the work of Dr Donald Layman, to trigger muscle protein synthesis somewhere between 2.5-3 grams. As we age, that process gets poor. It's called anabolic resistance, where we have trouble triggering muscle protein synthesis through diet and resistance training. So you actually need more protein.

So I think for the person 40+, especially the person 50 or 60+, 40 grams of protein is probably going to be a better choice in the morning. And if you look at most breakfast choices, they're not getting there. They're like 10 grams, 20 grams. And so breakfast for me, if that means doing a

loaded smoothie, that's what I like to call them, with some protein powder in there, maybe one of those, I don't know if you have them over in the UK, but we've got now these nut milks with added protein in them. Those things are easy. I can easily get 40, 50 grams of protein in by doing that.

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Now, you could do that with a combination of egg and egg whites. You can have lunch or dinner for breakfast. I don't know why we ever got into this place where breakfast was this, muffins and sweet roll, just garbage, when all that's going to do is really set you up on a roller coaster. A Blood sugar roller coaster. And it's called the second meal phenomenon all day long. So again, if you want to go strictly normal breakfast foods, you could even take some Greek style yogurt, stir in some more protein powder into it to get a double whammy of it, and easily hit your 40 grams there.

I also will cheat it a bit with people when I know that they might be having issues as we're starting. And I'll use essential amino acids and have them drink some of those, too. So I just make sure it's like my insurance policy. Right?

Dr Anu Arasu

And what about for people who are going through perimenopause or menopause?

JJ Virgin

So if you're there, it will pass. I needed someone just to say that to me when I was going through that. This will pass. The way I think of perimenopause, because you're in your perimenopause phase, and then all of a sudden you have the one day... It's so weird how we think of perimenopause that one day, oh, menopause happened. And then you're post. It's just strange.

But if someone just said, you're going to be out paddleboarding... I live in Florida now on a canal. So we go out and paddleboard, and it always looks really calm in our canal. And then you go out and you're like, what is happening? And it's like, all rocky. And then all of a sudden you'll go down another canal and it's calm. And that's what I feel like perimenopause is. It's like rocky, and then it's calm, and it's rocky, and it's calm.

And once you get past that into post menopause, it's so easy to balance your hormones, replace your estrogen and progesterone, know what you need, but as you're going through the rocky part of it, that's where the hormone replacement, you really have to work with the doctor and your symptoms, because you'd be taking labs every hour, you wouldn't be able to tell. So you have to do it based on symptoms to really be able to do it.

And my whole take on perimenopause is we really have no margin for error. We have to be optimizing everything else so that we can use replacement therapy if we choose to, as little as possible to get us back to balance. So it's a time when we really don't have great stress resilience. And so if there was going to be a priority in this time period, it is to get your stress management tools on board and to start using.

It's so much easier now that we can really monitor HRV, to really use HRV as a sign of what's going on, because it's not like you can take cortisol tests every day either, but you can do it with HRV to get to know your personal HRV and see how it's working. The old me, the me in my 30s... I was just

joking with one of my friends the other day going, "remember when we were in our, we would go out and we would like, drink and stay out all night and get up in the morning and go to the gym?"

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Yeah, those days are done. It's like now you have one glass of wine, you're like, "I didn't sleep well and my HRV is down". You're like, what happened? So we have to honor that, and we have to honor what's going to work best for our bodies in terms of our exercise, our stress management.

I think if you don't have a great tool, whether it's meditation or breath work or transcendent dance, whatever it is that helps you get your cortisol in control, you better get it before you hit this because everything's going to start to depend on your adrenals as you go through menopause, because that's where you're going to start to produce your estrogen postmenopausal, or you'll start to produce it in belly fat, which that means you're gaining belly fat, which is not what we want to do.

Dr Anu Arasu

Wow. So again, we come back to this tracking, and from what you're saying, it's even more important during the perimenopause or the menopause that we are actually tracking how our body is responding to things. You've mentioned tracking things like our macronutrients. You've mentioned tracking our heart rate variability. Can you give us an overview of what you think is helpful for us to be tracking?

JJ Virgin

Okay. Yes. And again, I gave a list to a girlfriend. She was like, okay, I'm ready to lose weight. I'm like, cool. So I gave her the list of what I wanted to do and I thought it was very simple about the food tracking and then going to do a DEXA and body tracking. And she came back three months later. She goes, I did 25% of what you asked, but I lost 25lbs. I'm like, oh, okay, well, all right, can we add another thing? So it's a reminder to me and to all of us as I'm rolling through these, if you go, "oh my gosh, I'm overwhelmed." Pick one. Pick one thing.

So I really like to get a baseline of what your body composition is, because unless you're tracking body composition, you won't really know what's going on. And there was a great study. I was just looking at where all they did, they took people. They didn't change their calories at all. All they did was one group ate what is a normal amount of protein per day, which is about 50% of what we should have. And the other group went to that 1 gram per pound of target body weight.

And over the course of twelve weeks, the one group that had done that lost body fat and put on lean body mass. They lost a couple of pounds, but they had a way bigger body composition shift, which you wouldn't have known unless you were looking at body composition. So I say that because things that I really like to have people do with, like, resistance training and creatine, what that's going to do is probably make your weight loss look like it's not happening because your body composition is shifting dramatically.

And the reality is, as we age, our biggest priority should be putting on as much muscle as we humanly can. Because especially as women, it's really hard to do that. If you're listening, going, I don't want to get big. You could stop any day and it will go away. Don't worry about it. But in 40

years of helping women put weight on, put muscle on, I've never seen a woman get big. I've never seen it. We just don't have the... Unless you want to take some steroids. I know I lift really heavy weight and it's just like, it makes me smaller. I have trouble keeping weight on and I have to monitor and make sure I get enough food. Come on. Who doesn't want to be in that situation, right? I'm sure no one's going, boohoo over there.

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So that's the first place. Body composition is now the gold standard. Best thing to do is to go get what's called a DEXA body scan. We do those for bone mineral density, but they can also look at your body composition. This is something I think should be done every six months. Like this idea that we go to the doctor's office and step on a normal scale that just tells us weight is so antiquated. I can't believe we're still doing it. It would be like looking at total cholesterol and trying to make some kind of predictive assessment on your overall cardiovascular health.

No one would do that nowadays. Yet we do this with weight. It's so stupid. It's just like using a BMI and trying to make a prediction. Like, my husband looked great with his BMI and he had normal weight obesity. Right? And you would never know. You would not have known by looking in. So body composition is super important, and that way, too, you can catch things like bone mineral density. However, bone mineral density is really a lagging indicator of not enough skeletal muscle mass.

You fix your skeletal muscle mass and osteoporosis shouldn't be an issue for you. So that would be the first thing, is to get a DEXA scan done and then come home and buy an inexpensive bioimpedance scale. That means it's not just looking at weight, but it's looking at what that weight is made up of. So you're going to be able to see, how much skeletal muscle do I have? How much body fat do I have? It can even tell you that visceral adipose tissue, which you can have a bunch of fat on your thighs and your butt, and it's not going to kill you.

The fat on your visceral adipose tissue around your organs, that's the problematic fat. The issue with bioimpedance is it's based on total body water. So it's very predictive, but it's not as accurate as DEXA. But you're just looking for relative change. That's it. And that's why you want to use this. So you get a scale that has a Bluetooth so that it can just go into your phone, and then every week, you can look at this scale, look at the graph, and you take the average so that you're just watching to make sure that you are going in the right direction.

That body fat, if you need it to decrease, is going down, especially visceral adipose tissue. And skeletal muscle is maintaining or going up, because right now, the average person going on a diet, if they are not doing this with prioritizing protein and doing resistance training, they're losing, like, 35% of their body. They're losing their lean tissue. They may never get it back. This is devastating.

It's why in the United States with the Biggest Loser, we saw people having that metabolic adaptation where their metabolism post dieting was 500 calories lower than it should have been. Right? This is what we want to avoid at all costs. We want to end up in a place where now we've got more muscle mass and that muscle mass is improving our insulin sensitivity.

It's giving carbohydrates a place to land. Because our muscles are sugar sponges. Not only they are a hormone and endocrine organ, but they're a sugar sponge that gives carbohydrates a place to go rather than your belly fat. And of course, muscle holds everything in tighter and needs more energy to be there to go through muscle protein turnover every single day. So versus that

bioimpedance and a tape measure so that you're monitoring your waste. I like to say if you're losing weight but not losing your waist, you're making yourself worse, not better. That's step one.

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Next one is using just an app for tracking your food. Starting just with figuring out what your maintenance calories are, then prioritizing that protein, eating it first, and then you can get more granular and really start to go. Okay, let's look at how much fiber, let's look at non-starchy vegetables. Right? And just one thing at a time, focusing as far as the other trackers.

When we look at metabolism, metabolism is based on your basal metabolic rate, which is really your age, your sex, how much muscle mass you have on your body. Is your thyroid working well, your genetics, plus your total energy expenditure is BMR, plus your activity throughout the day, which is both activity and exercise, the thermic effect of food. Right? And so we tend to look at exercise when we forget about activity.

When I'm starting someone working out, the first thing I want to make sure is they just have that 8000-12000 steps a day that they actually are active throughout the day. Because if you work out 20 minutes a day and sit on your butt the rest of the time, it's not going to work.

So my step one with people is just to start tracking their activity throughout the day so that they get to 8000 as a minimum. 12,000... That's the range we want to get to. That's kind of that bell curve. You can always do more, but that's where we want to get to. So that's step one. And then after that, I'm looking at more... We can talk exercise in depth.

After that one, I like to use some kind of a sleep tracker. I really like the Oura Ring. I think more than anything else, it helps you really see how your bad habits mess up your sleep. Right. That if you ate late at night, that if you drank, what are the things that really impact your sleep? Blue light, et cetera. And then I like to do some kind of HRV measurement. Those are the ones that I really love. I think we can also play around with, depending on if you've got issues with any kind of insulin resistance, we can play around with the blood sugar monitor to get better... Or stress to get better control of that as well.

Dr Anu Arasu

If somebody is starting from scratch when they first have that body composition scan, what should they be aiming for and what kind of time frame? What kind of body fat percentage? In what time frame?

JJ Virgin

Oh, it depends on... It's interesting, the more you have to lose, the worse shape you're in, the faster things will go. Right. Like, if you have high body fat and you haven't been exercising at all, you're going to see a lot more progress than someone who is lean and very fit, and they just want to get a little fitter. They're the harder ones to work with, really.

So let's say someone is 30% body fat. They need to put on some muscle. A female in her 40s, you can put on about a pound of muscle a month, is realistic. I will tell you a story about a client I had, Vicky. Vicky came to me. She was 25% body fat. She was a skinny fat, which a normal, healthy woman, somewhere 18-25%. It really depends on their body type. She was someone who was

more of an ectomorphic body type. Like, you could tell she would do better sitting. Probably around 20% body fat. Anyway. She's 25% body fat. She wants to lose ten pounds. She didn't have ten pounds on her. She was, like, completely normal weight. She was that normal weight. Obese, but she wasn't obese. She was just overfat. Right.

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So we worked together for a year, and over the course of a year, she put on ten pounds of muscle. She dropped ten pounds of fat. Her weight did not change at all. Her body fat went down to 18%. She dropped two clothing sizes, like, looked like an entirely different person. And the funniest part was, at the end of it, she's upset. She didn't lose on the scale. The scale had not changed. I'm like, oh, my gosh. Are you kidding me? The scale could have gone down ten pounds, and you would have been a fluffy version, like a fluffy, fatty version of a skinny fat person. Like, you look like totally different. So we've really got to stop that kind of mindset.

But for a woman, especially, like a pound of muscle a month, two pounds of fat a week, those are about the norms that you can do basically kind of like 1% of your body weight a week in weight loss, because more than that, you're going to start to accelerate fat free mass loss and then putting on that pound of muscle a month.

So it's a slower process, but it's a lasting process because again, if you do, what most normal people will do is they'll go on caloric restriction without having enough protein. They aren't really doing anything besides walking, which can exacerbate them, then losing lean tissue, the caloric restriction plus cardio without resistance training. Some cardio will help. Actually, that's not quite correct. Some cardio can help you hold on to, but it's not going to be like resistance training.

So they start doing that again, average will be losing, like 30% of your lean tissue, right? So you come off of that diet and remember, your basal metabolic rate is based on your weight and your total energy expenditure is based on your weight plus activity plus thermic effect of food.

Now, all of a sudden, you can't eat anywhere near what you used to be able to eat, but you go back to eating the way you used to and boom, guess what happens? But you don't put on much, you don't go back to... OK, I'm going to put on 75% fat and 35%... Or 65% fat, 35% muscle. No, you probably put on like 85% fat, 15% muscle. So you're shifting your body composition in the wrong direction.

So that's why, again, I go back to... We got to get the focus off of losing weight, because if you want to lose weight, eat very low calorie... You can have Snickers bars, it doesn't matter. Eat super low calorie, sit on the couch, don't do anything, lose as much muscle as possible because it weighs more than fat and no one would do that. Everyone could go, well, that's dumb, I shouldn't do that. But the reality is, if you want to lose a lot of weight, that's the way you do it. Right? And dehydrate your tissue, which, of course, makes you store more fat when you dehydrate your tissue.

So again, if we can just focus on body composition and thinking, how do I build quality muscle? Because if I build quality muscle and I focus on eating protein first, so I'm more satiated, I have bigger thermic effect food, I have better blood sugar regulation, I don't have cravings. And then I start doing some resistance training so that my muscles now are more insulin sensitive so I'll be better able... Easier for me to start to burn fat. It's going to help me handle stress better. So I'm going to be less likely to store belly fat.

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If I could just start there and focus on monitoring the scale for adding muscle, I will lose fat and I'll have a better metabolism and I won't go through all of that feeling like crap... All of that is so typical in a diet.

Dr Anu Arasu

Such a strong message. It's the protein, it's the resistance exercise, it's the only protection against sarcopenia. But tell us about the mindset that people need. Because of course there's this other aspect where there's so many people not doing this and there's the temptations of a social life. What kind of support do people need to actually start tracking and stick to this and make it work?

JJ Virgin

Good question. So it's so funny, I was doing a talk and they said, how does someone maintain this? So they've gotten in better shape, et cetera, and they actually even want to get in better shape than that. What should they do? And I go, they should find fitter friends. And I actually posted this on social and got like a hate DM. And I'm like, gosh, you can get a hate DM for anything nowadays. I was like, really? But they were like, I guess I have to give up my friends. I said, I didn't say give up your current friends, but find some fitter friends because if you are, let's say your, you know, going to the same old class and I'll give an example.

We used to go to a yoga class here in the States and we were the youngest people in the yoga class and the fittest people in the yoga class. So we thought, we're the best people in the yoga class and we're not good at yoga. And then we went to a class where we were the oldest people in the yoga class and these were like yogis, and we got our butts kicked.

And I go, this is what we need to be in. Just like we went to a HIT class in town and again, they were like, you guys sure you want to be here? And I go, I know that everyone in here could be our kid or grandkid, and we are going to do this class and we're keeping up. In fact, we're going to school you. So that's what we have to do, right. Is we have to put ourselves in challenging situations and stay out of these workout ruts. Because if you think about exercise, exercise has to be progressive. You have to do more than what you're used to.

So you have to continuously challenge yourself. And so if you want to get better at something, be around people who are already there. Right? Who is better at it? If you want to do this, hire a coach, be in a group, have accountability. So that is super important.

But I think the very first part of this is going, what if in my 40s or my 50s or my 60s, I could actually be in the best shape of my life? Because if I can do that now... I'm all thinking about, like, what do I want to be able to do at 70? What do I want to be able to do at 80? What do I want to be able to do at 90? Well, if I want to be able to do that, then I better be able to do twice that now because it's not going to get easier as I get older. Right?

So I'm totally training to be able to be playful in my 80s and 90s. It's like I didn't work my butt off for this to then have to sit around later. And my mom passed recently, but up at 93 years old, she was golfing. She lived in a house where she had to go up and down the stairs. She was doing all of

her own stuff, all of her own shopping. And that's what we aspire to. But that doesn't just happen, right. That was all her choice of being super active and eating healthy.

[00:34:07] Dr Anu Arasu

Yeah. So it's the tribe. That's a big one.

JJ Virgin

It's the tribe. It is the tribe. The people that I spend time with, this is the way they live. And it doesn't mean that we don't go out and have a glass of wine here and there or stay out every once in a while and go dancing till one in the morning. But it's the exception, not the rule. However, I will tell you, I can't think of any time in any situation where I've been in a place where they've been eating garbage food. Like, no one in our tribe does that. They're all really healthy eaters. And once you get used to eating that way, that is, I think, the easiest part of it because the other stuff just doesn't appeal.

Dr Anu Arasu

Is it helpful to talk about this a lot, to keep thinking about it, to meditate on it? What kind of mindset would you advise people to try to cultivate?

JJ Virgin

We're never better than when we're challenged. Now, that doesn't mean overwhelmed. Like, if I'm overwhelmed, I go into paralysis. So for me, whatever I'm going to work on, I pick one thing. Two years ago, I decided I was going to get meditation dialed in. Before that, it was yoga. So three years ago, I was going to deal with yoga because I had never been good at it, which was why I was going to the wimpy class. Then it was, I'm going to really get into meditation. I went to five Dr Joe Dispenza meditation retreats in the course of a year. I was in it to win it and got that nailed.

Now I'm really working on VO2 Max and measuring that and doing, focusing on HIT training because I'll go and lift weights all day long. So I'm working on HIT, but I do one thing at a time and focus on it, not three or four things. And I make it fun in a challenge. So if you tested your VO2 Max, and let's say I was at 37, and I wanted to see if I could push it to 39 or 40, okay. What amount of time would I have to do that in? So I did the same thing with resistance training.

So I think it's really about figuring out a fun goal. And the fun goal isn't fat loss. Here's the thing. If you live like a healthy, lean person, you'll become one. So it's actually not you trying to starve yourself and step on a scale. It's actually going, all right, I'm going to pick the thing. Maybe it's eating protein first. Maybe it's doing a... I have a protein powered detox I'll put people on to really get their pathways going or put them on a specific fat loss body recomping diet.

So whatever the thing is that you're doing, but you're measuring things that are really actionable for you, like, you can measure your grip strength and then go do what you need to do to get stronger and see a difference in a month. Right. Same with your skeletal muscle. So pick a thing and then focus on that thing and get better at that thing. And then when you're where you want to be and you've gotten that as a real habit and you're addicted to it. Right? Healthy. Then go to the next thing and have people around you doing it with you because we're supposed to be in community.

[00:37:18] Dr Anu Arasu

Yeah. That is a great way to do it. Any other key, take home messages then for people out there listening? I mean, we've heard some stuff about tracking, particularly body composition, micro and macros, heart rate variability. But you did touch a bit on exercise and sleep in your earlier conversations.

JJ Virgin

Let's talk fitness. Yes, and I think this is especially important for women to understand because genetically we have... There's two broad categories of muscle fibers, slow twitch and fast twitch. And slow twitch is like you all day long, walking, doing stuff, long, slow distance, et cetera. Fast twitch is that quick, powerful move.

As we age, we lose muscle, and we've heard up to 1% a year from age... Starting around age 30, but really 40+. But that actually isn't the biggest issue. We lose 2-4% of our strength, 6-8% of our power. So muscle size really is a volume play. Like, you're going to the gym and you're doing four sets of ten push ups. Getting to a point where you feel like you can only do maybe one or two more push ups. That pushing past what you're used to causes your muscles to grow bigger.

A strength is something where you can only do it... It's something you can only do once, is true strength. So when you're building strength, you're doing it very differently. You're doing something where you could move something 3-5 times, and really you'd sacrifice form to do it again. You take longer rest breaks, like 3-5 minutes, and you do 3-5 sets. That builds your strength. Power is how fast you can do something. And when you really think about it, like gait speed is highly correlated to all-cause mortality, just like grip strength is too. But power is what takes us down.

That inability for us to catch ourselves, to shift quickly. We've all heard the statistics that if someone breaks their hip at 60+, the chance they're going to die within the next year, I think, is something like 30%. I mean, it's devastating. And that really has to do with our power.

And I say this because when you look at what most people are doing for exercise as they age, they're walking. Now, unless you're totally deconditioned, walking shouldn't be counted as exercise. And I get hate on social media for this. So I must be doing something right, because when you look at activity versus exercise, exercise is something that is more than what you're used to. So your body has to adapt. That means you're probably going to get hot, sweaty, it'll hurt a little bit. Walking is controlled falling. It's something we should be doing a lot of every single day.

But don't confuse activity with exercise. We need both. And walking is slow twitch muscle fibers. As we age, our percentage of slow twitch versus fast twitch, we get more and more slow twitch, less and less fast twitch, and preferentially we have slow twitch muscle fibers, fast twitch muscle fibers, and then these ones that can convert either way. So they could either become slow twitch or they could become fast twitch. So if you're prioritizing lots of slow twitch activity and not fast twitch, guess what? You'll do a higher percentage of slow twitch.

You're basically training your body to be slower as you age, which is not the goal. So we need to be doing resistance training and resistance training that also puts in some strength moves and also puts in some power moves. That would be things like jumping, kettlebell swings, snatches, side bounds. I love things that move all through the planes of side-to-side, front and back, and rotation,

and HIT, high intensity interval training, because that, again, is going to work. Those fast twitches where you really push it and recover and push it and recover.

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So you're training your nervous system to be able to recover faster, but you're training those fast twitch fibers as well, which we also know really helps not only improve VO2 Max, but it also improves visceral adipose tissue. So to me, a really well rounded exercise program.

First, of course, we're doing the 8000-12000 steps. And if you can do that after a meal, bonus points. Because you're going to improve glucose tolerance, you'll lower the blood sugar response to the meal. You could also do some push ups or some air squats or whatever, anything to suck the sugar into your muscles to be stored as glycogen, then you do your resistance training.

And once you've got a good foundation of what I call hypertrophy training under your belt, and you train to get better at life, not to get better at training. So while you can get the same hypertrophy from machines versus free weights and cables, if you can manage it, it really depends on your joints and past injuries. You're so much better off doing free weights and cables because of how much more functional it is. It'll draw in your core, right?

And working through ranges of motion and involving balance, because we lose balance as we age, we lose range of motion and flexibility as we age, right? We lose stability as we age. So ideally, you're doing things like squats that require you to use your core. You're doing bent over rows that mimic you getting things out of the car, right, like a squat mimics you getting off the toilet. A bent over row mimics you picking something up off the floor or a deadlift does. These are things that we have to do in life, so let's do them in a very safe space in a gym where we can do more than what we'd have to in life so that we won't get hurt in life. Right?

People tend to, as they age, do less because they're worried about getting hurt. And the less you do, the less you do, and the more you set yourself up to really get injured in daily life. So that's how I see doing resistance training. And then once you have a good foundation, you can add in some strength moves, and that would be really heavy things. And generally I'll do those on a machine.

I might do a leg press, five sets at a super high weight, or a chest press, seated high weight. And then you can also throw in some power moves that can be as simple as doing jumping jacks, right? As simple as doing a little air squat and jump up. But things to get that fast twitch, muscle fibers firing and woken back up again, because if you don't use them, you do lose them.

Dr Anu Arasu

And how often or how much time should people be putting into this? Is shortened and frequent better, or are longer sessions preferable?

JJ Virgin

This is like the arguments over the exercise physiology. Like, if you look at it everywhere, it's so interesting because back when I was in grad school, they were very definitive as to what was the hypertrophy range, what was the strength range. You need to do this, and now it's all over the board. However, I think it's consistency and daily movement is mission critical. I think habitually

we're so much better off if we just say, I'm going to get my activity in every day, my activity points, and I'm going to do something for exercise every day.

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So maybe today I'm doing upper body pushing and pulling. Tomorrow I'll do some HIT training, the next day I'll do some legs. You want to work each of your main body parts and I put them into upper body pushing, upper body pulling, hips and thighs, and power core. But if you're doing your resistance training correctly, you get your core involved. So I like to get that in at least twice a week each time. So maybe you split it up and you do upper body pushing and pulling twice a week. Or maybe you do everything together twice or three times a week, but at least twice a week.

And I also think the other piece of that, that's so important... I just find for a lot of women, we've overdone this. Not underdone it. If you haven't done it, I think yoga or Pilates is really important. When I look at what's important, assessment wise, for fitness, it would be doing a simple VO2 Max test, which you can do on a treadmill by yourself. It would be doing a hand grip dynamometer, which you can buy for like, \$20 to check your grip strength.

It would be doing a vertical jump test, another thing you can do at home with the tape measure. And it would be a get up off the floor test. And it is as simple as crossing your feet, sitting down and getting back up and seeing if you can do that without using anything or max, using one or two touch points, then you're in the approved state.

So that's why I like yoga, because it causes you to have to balance. That's another one that they'll do, is having people balance on one leg. It causes you to have to balance, to get up off the floor, to use your core, to go through ranges of motion like rotation, which we're not used to, that we really need to do.

Dr Anu Arasu

Yes. So, in total, some of the figures that have been thrown about are things like two and a half hours a week. Would you say that there is any amount of exercise or range that people should be guided by?

JJ Virgin

I know this has always been the hardest thing. When I was in grad school, all the research was done on cardiovascular training, and I didn't want to do that. I did strength training. I was like the person that went rogue in the department. But you look at exercise and exercise, the whole exercise world could be walking, it could be Pilates, it could be powerlifting... And you can't say that 30 minutes of resistance training is the same as 30 minutes of walking. It's not. Right? Or 30 minutes of HIT is the same as 30 minutes of walking.

And so it's just, to me, I've been working on this new exercise program. I've been really trying to wrap my brain around. How would you really prescribe this? And it's different when you're 40+, and it's different when you're a woman and you're losing more fast twitch. And so for me, I would say minimum. I would look at it more as, like, these exercises... Rhonda Patrick calls them these snacks, but I would put in these blocks and I'd say minimum, two days a week of, say, 20 minutes of high intensity interval training.

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And when I'm looking at that, that's how I was always trained, high intensity interval training. And now they've got it as sprint interval training and high intensity interval training, because I guess the high intensity went down, and I'm like, no, it was supposed to be all out. So I'd say 20 minutes of that, varying your sprint times, because depending on the time of the sprint, 10-30 seconds, 30-60, to 60 to 4 minutes, they use different energy systems. And then I would say each body part, ten exercises total per week for each push, pull, hip hinge divided into at least two days.

And then you just have to judge, how much more do I need? How's my V02 Max? If I really need to focus on that. Cool thing is resistance training helps it, too. But you might want to prioritize a third HIT session. How's my muscle mass? Do I need to work more on that? Well, I might need more volume then, and add in a third day. How's my power? Is my vertical jump terrible? Well, then I might want to put one day in. Then I'm just focusing on power moves.

So it really comes down to program your exercise based on the goals that you have and that, I think for most people starting out, the biggest goal is to get them moving through functional ranges of motion and starting to build some muscle. It's really after you've been at it for about a year that you start to get more fancy. Right? To start, you committed to two days for each body part and two days of HIT and one day of yoga and getting in all your walking. Holy smokes. You'd be doing more than, like, 80, 90% of the population worldwide, right?

Dr Anu Arasu

Absolutely. So... Last question...

JJ Virgin

But I also build it one by one. Like, I start with activity, then I go into resistance training, then I add HIT, then I add yoga. I don't go, let's start all that right now. And that's what I would say. If you're hearing all this and you want to curl up in a fetal position and cry now, just start with tracking your food. Then add the protein in. Cool, you're there. Now let's look at moving more. Add your steps. Cool, you're there. Let's add some resistance training in. Awesome.

Now you're going back and going, God, I feel kind of stuck on my weight. Well, now we can start to do some diet cycling to lower calories to facilitate fat burn. All right, we're there. Let's add some HIT training in. Right? So just one by one by one by one, you don't do the whole thing at once unless you're going off to a spa for a month and they're going to do it for you. And you don't have to think.

Dr Anu Arasu

Last question, I promise. Water. Should we all be drinking water with added minerals?

JJ Virgin

So I love the research by Rick Johnson, who wrote the book *Nature Wants Us to Be Fat* and talks about the fat switch. And he was, when I wrote my sugar impact diet, I went and looked at all his research on fructose. And a very interesting thing with hydration, it doesn't take much dehydration to trigger issues in the body. Like, 1% can start to raise cortisol. But the other thing that

dehydration does is it actually changes... It makes your body take glucose in the liver and convert it to fructose and store it as fat. Because fat is actually a water storage system for us, because when you burn fat, you liberate water.

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So our body does that in reverse and holds on to it if we're dehydrated. So we want to make sure we're well hydrated. Now, having said that, I think part of what we should be doing is doing electrolytes in at least one or two of those servings of water a day. So that's one of the things that I do, is make sure that when I'm going to the gym, I do it. I take my essential aminos, because you know what, it's kind of an insurance policy.

Now I've got my amino acids on board just in case I need more, I've got them. I put some electrolytes in there with it as well. And I have creatine that I take, too, but I do that every single day as part of my morning routine, so that's in there, too. And it doesn't matter when you take creatine once your tissue stores are up. And I mention creatine because I think of any supplement, like as a longevity supplement. Once we look at you're eating protein first, you're lifting heavy things, you're sleeping through the night. Creatine. Holy smokes. For cognition, for skin, for exercise performance. There's just so many great things about it. And for women, we have 70-80% less tissue stores of creatine than men, so it can make a huge difference.

Dr Anu Arasu

Fabulous, JJ. Thank you so much. That's been absolutely amazing.

JJ Virgin

You are welcome.