Introduction to the Summit and Guest Background

You're watching the Restore your Mitochondria matrix summit. I'm your host, Laura Frontera, and I'm bringing you experts with fresh ideas and proven methods to help you boost your energy and fix your health so you can build the life you love.

And today, my special guest is Betty Murray. Hi, Betty. Welcome to the summit. Hi, Laura. Thank you for having me. I'm so excited to be here as I am excited to have you too, because we are going to talk deeply today about a lot of my favorite topics for women estrogen genetics, metabolism, menopause, weight loss, all those good things.

But first, I want to introduce you before we dive into those topics. Now you are a nutrition expert and you're a certified functional medicine practitioner.

And you really specialize in helping women harness their hormones so they can lose weight, optimize their sleep, restore their energy, and thrive in life.

So this is the right audience for you. Now, during your research for your PhD, you actually made four key discoveries that lead to hormone imbalances.

And they actually plague women over 40. And by restoring balance to these key metabolic pathways, you actually help your clients lose weight with ease and get their sleep back and turn up their energy.

And we can find you on your podcast, host the Functional Life podcast. And you're also the founder and CEO of Living Well Dallas Functional Medicine Center.

And we can also catch you on TV, but on Fox, NBC, CBS. So welcome. You are a wealth of knowledge and expertise. So before we jump into this topic, tell me a little bit about how you got here.

What did you end up doing this? You know, I think, the beauty in functional medicine in particular, so many of us come from our own experience and our own our own trials.

And so I think it makes, a better practitioner. So I actually had a different career. I was in sales and marketing and got swept into the technology boom in the early 90s.

So I was a tech geek. I was in it, and I was hired to work for the CTO of a company, only female ever in that company. So I was immediately elevated into an executive sort of position.

First female ever hired in, in that company, in it. So I worked about 100 hours a week, spent six months of the year on the road, and at the time I had had digestive problems that would come and go.

But, you know, you're you're in your 20s. You don't notice it when you're younger. You get a little bit older. You're like, that's not good. Well, I ended up getting diagnosed with colitis and accelerated as my stress level got higher and higher.

And I remember sitting there with the doctor and asking the question, could it be something I'm eating? Could could I change my diet with a digestive autoimmune disorder and make an improvement?

And he literally laughed in my face and told me food had nothing to do with it. And then I needed to go on a medication. And at that moment I was like, okay.

A five year old could tell me digestion has a lot to do with food and vice versa. So I started taking nutrition classes. I

was always into fitness and exercise.

I was, you know, I've been a bodybuilder. And so I was like, I'm just going to take some classes and kind of revisit this. And when I got in there and I really started going into particularly the biochemistry, that's when I was like, this is where I need to be.

So I went back to school. Needless to say, I fixed my colitis. But as I'm doing that and I'm going back to school while I'm working full time in corporate America carrying the same job, my hormones also started going awry.

This is into my 30s, so I start breaking out with acne on my chin. I start, you know, having extraordinary fatigue, can't sleep. And so I always had this other part that I'm like, why is it, as women in particular, we get the short end of the stick?

Yes, we get to have a baby and bring life onto this planet. But we see autoimmunity ten to 1 to 9. We suffer from IBS four times more than men. We're more likely to have Alzheimer's, Parkinson's, all these other things.

Menopause, Mitochondria, and the Uric Acid Fat Switch

And I was like, there's a huge component that has to do with our hormones, and particularly the cyclical and seasonal changes of our lives. And so that has become kind of a conduit of a lot of my research, whether it's looking at immune system or hormones or whatever.

And then of course, going through menopause a couple years ago, that made me look at it even more closely. When I finally went through that doorway of menopause.

So long story. Endless. That's why I'm really here and doing what I'm doing. Oh my gosh. And this is a this is a theme with many people that we're interviewing on this summit, is solving your own problem first, realizing that there's a need for this and actually falling in love with the process as you do it, and then committing the rest of your career and your life to helping others get better.

Sounds like you're one of those definitely, definitely. It's and you know, it's constantly, you know, I think the beautiful part of this world and what and functional medicine I'd say everybody that's probably listening to the summit is, is if you've got a learner's mind, there's always an opportunity to know and learn more and always an opportunity to kind of upgrade your body, upgrade your health, upgrade everything.

So it's it's like never ending for the overachiever in us. It's a never ending opportunity to become better, do better. Oh yeah. There's always room for more.

So with that, let's learn some more today. Now I want to start with, research that you identify during your PhD. And, you came across some key research that wasn't really getting talked about, and it indicated that menopause changes slow cellular metabolism and turns on a fat switch in the cell.

Can you share more about that? And as it relates to energy mitochondrial health, because it's all related. Oh it's oh it's definitely all related. So what's interesting is if you look at most even well-meaning, well-designed studies, almost always there's this kind of similar sort of packaging of information that comes out.

And it's okay, we need to reduce carbohydrate content, right? Get your sugars down, get those things down so we can create insulin sensitivity at the cell.

Because if you become insulin sensitive you lower glucose. Lo and behold your body will burn fat. But I know over the 17 years I've been in practice that women would come into my office and say, you know what?

I'm low carb in it. I'm eating high protein, low carb. I'm not cheating. I'm exercising five days a week doing it. And something isn't working out here, right?

So what I'm going through my research and I'm looking at I'm looking at are there genetics at play. Are there receptor things that are happening at play.

And one of the first things I found is, is there's a couple things that happened metabolically. So we're going to start kind of macro and work our way down.

So as a woman goes through perimenopause and menopause. So in perimenopause we usually have a lot more estrogen relative to progesterone. So many of us are in sort of an estrogen dominant state.

So we're driving these receptors are driving more estrogen which generally will make you more insulin resistant. Then as you head through menopause, you have this precipitous drop of estrogen.

So those of us that might have made more estrogen actually going to have more of these receptors for it. Well, what's interesting is you start looking at it.

Some of the things that happen is we see de novo, like Genesis. So if everybody doesn't know what that means, that is the building of fat cells. Right.

So in creation of fat, particularly in the liver. So as we go through menopause that amplifies in women. So we have this uphill battle to some degree, particularly with the loss of estrogen with this increased activity.

Right. Increased packaging of triglycerides, increased activity at the cell. And we see some changes within the liver that also decrease the capacity for the liver to really metabolize fatty acids and other things.

So so we have that piece happening that's at this sort of macro body level. So then if you drop down you go, okay what's really happening in the cell.

So you got your mitochondria and we have some switches in the mitochondria. And it was some outstanding work by a doctor, Rick Johnson out of out of I think University of Colorado.

Don't quote me on that. Looking at what what mechanism works to turn on fat storage in animals that hibernate. Right. So so we have animals at hibernates like bears and squirrels.

And in all animals we don't know animal gains weight or gains fat. Let me replace that. Gains fat uncontrollably. That's always in nature a controlled process like bears gaining fat is so they can hibernate into the winter.

Well, the mechanism inside the cell is the increase of uric acid being built inside the cell, which acts as a mitochondrial break. So what it does is it actually slows mitochondrial function, reduces the amount of ATP production and reduces Ampk, which are all those things that people don't know what that means.

It's basically taking that powerhouse that was running on a Tesla level and says, okay, I'm going to take you down to a Nissan Leaf to be efficient, right?

So be efficient. You can move. But we're going to go ahead and down regulate all that activity and was like, okay great great. So I'm reading his research which is absolutely brilliant.

I love the man and I'm like okay so uric acid inside the cell is the fat switch. And it's actually ancestrally all almost all of us have this mutation because it's what allowed us to go from apes during an ice age to a human.

Otherwise we never would have made it right. And so this is this controlled mechanism that happens in all animals. It allows for fat weight gain. But if you go look at the research, lo and behold, they don't know.

It's kind of a confounding thing when you look at it. Women in menopause have higher circulating levels of uric acid naturally. All right. So I mean so far so so what I'm hearing is that whole problem of central kind of menopause, weight gain where it was easy to keep the weight off before menopause.

And now all of a sudden you're fighting to keep it off. It's actually something that's animalistic. It's in us. It's something that happens. And you know why, right?

Yeah. Yeah. So it's so it's basically there's a programed receptor. We have estrogen receptor alpha and beta just like we have adrenal receptors. So that that receptor activity changes.

We see a rise in uric acid naturally inside the cell which tells the mitochondria slow down. So powerhouse Tesla to Nissan Leaf no no offense to anybody has Nissan Leaf.

But we just know it just doesn't have the same amount of power right. So all of a sudden the cell inside the mitochondria itself is getting a signal to slow.

Right. So I've got that message to slow. We have a reduction in ATP. So the actual production of of energy itself. So all of a sudden we have those things happening.

And then you've got the situation where if I've had estrogen changes and all that other stuff, and I've got high cortisol, which I'm sure people will be talking about on the summit and all these other things that happen in high achieving women, we're going to have some receptor problems on the cell itself for things like insulin and maybe our thyroid hormone.

So it's coming from both directions. So for the woman that says, hey, you know, I've been working out with a trainer doing hit eating low carb, you know, high protein.

Maybe I even did key to, you know, a ketogenic diet with high fat, moderate protein, whatever I did. But nothing's happening. It's probably because there's something going on that's not being addressed.

And it's actually that mitochondrial function that is being that is being being basically altered by the loss of estrogen and the loss of this receptor signaling of estrogen inside the mitochondrial activity.

So I know right now people listening are thinking, okay, great, what the heck do I do about that? So I want to get into genetics and a genetic analysis and all that.

But real quick, can you wrap this up and put a bow on it and help our viewers know that there's hope? So yeah. So what's what do you do about it? Right.

So so there's always hope. I will tell you everybody, anybody I've ever worked for, there's always hope. So the thing is, if we looked in nature because you got to remember, no animal on the planet gains that uncontrollably other than humans and the animals we see.

So this is a mechanism that allows animals to survive in times of famine. So what we've done to our food, our food supply and the things that we've added to our foods are our automatically making our uric acid levels slightly higher anyway.

So for the woman in menopause, it hasn't corrected for these dietary changes. Basically what's happened is you have, let's say, a 30% drop in function, an increase in and uric acid.

Just because you're in menopause, that's enough to shove you over the limit and basically take that Nissan Leaf that's on its last like little bar of energy.

Right. So so what things raise uric acid okay. So the first thing that nobody thinks about is alcohol.

Diet Triggers, Helpful Foods, and Metabolic Flexibility

Alcohol and sugar absolutely raise uric acid. Doesn't matter what type of sugar. But high fructose corn sirup is absolutely the worst. And I know everybody knows you shouldn't do it.

And if you don't know it today, you do need to know it today. So those foods automatically raise uric acid. Period. Right. So too much alcohol, too much, too much fructose and sugar.

You're highly processed, highly palatable food stuff. So all the processed foods, the cookies, the crackers, all that stuff. But here's the kicker. And here's I know this because I experienced this myself because I haven't been a bodybuilder.

I've been on like a low carb diet my entire adulthood. And I'm 52 going on 53 this year. And it was funny because as I hit my late 40s, I was like, this is not working.

I was experiencing it. This isn't just something I did esoteric like, I was living it and but what was funny, it was like, oh, if I had just a moment, my favorite meal and this is going to hit home for a lot of people, was going to be a little bit of salami, a little bit of turkey, maybe a couple pieces of cheese, a whole bunch of vegetables.

You know, I make sure was keto, right? You know, it was keto and low carb. But I love those foods. So guess what else raises uric acid? Your aged foods, right.

So all your salami charcuterie take the cheese. You know umami flavored foods. So things that have soy sauce in it. Well here's the thing. The other thing that happens is all of the food additives we put in food, everything from MSG to texturized, vegetable proteins, all of those things not only turn off satiety in the brain and make you hungrier and make you desire more food, but they raise your acid levels rapidly.

And yeast, right? So wine, beer. So uric acid naturally get raised inside the cell when there's damage to the RNA. So things with yeast have a really high amount of RNA in it.

So it signals to the body. This is damage happening inside the cell. So the other thing it's sneakily found in is look at all your packaged goods, even the stuff from Whole Foods, you know, your great bone broth and make sure it has no auto lysed yeast extracts because yeast extract.

So the same thing is MSG just a slight chemical change. So a lot of what's happening for women is in men is we have just enough of this in our diet to raise that uric acid.

And then if you're the woman that's passing over menopause, now, we've just shoved it a little bit higher. And I think they're eating all the right things.

Oh yeah. Oh yeah. Yeah. It's like I was like, you know, pancetta. Come on, that's great. All right. So now we know what not to eat. So what are you suggesting to your women who are who are struggling with this.

What are you having for me? Give them some ideas of what would work for for helping, prevent this uric acid level from going up. Right. So if we're so we're looking at that mostly it's taking out things.

But if we look at the things that can help. So vitamin C so foods that are rich in vitamin C, everything from, you know I'm not a huge fan of a lot of fruit, but you know, having some citrus here and there, if you can tolerate citrus or your tomatoes, your, red bell peppers, things that have high vitamin C that can help.

But but if we look at the foods that are generally healthy anyway, your leafy greens, your your healthy vegetables, your animal proteins that are unprocessed and also not marinated in a bunch of a bunch of food additives and things that might increase fat.

Those things help because you get both. You get both the effect of the insulin change that's possibly at the cell, because you've got less glucose circulating and you have the reduction in uric acid right now.

The thing is, the other thing that can raise your acid a lot is a diet too high in animal protein. So it's all about the dance of the nuts. Not too much.

And I would say generally most of my women either they're like kind of the carnivore kind of fan. Most of them under eat animal protein, like it's kind of a fight to get adequate amounts.

So it's about having enough. And it's not that you can't do carbohydrates. I think a lot of people perceive that if I need to lose body fat, I need to take carbohydrates out.

And what I found in my research and what I've done with the programs that I do, is a lot of times we have a three phase approach, because the first approach you have to sort of get both sides working.

But in many cases, once you correct for that problem, it's also not I have to be on a low carb diet for the rest of my life. We actually create metabolic flexibility because that mitochondria can actually now burn both fat and carbohydrate.

Because the other thing is, is when the when the mitochondria downturned like that, it's not going to burn fat as its primary fuel, it's going to store fat.

So interesting. You're actually turning off your fat burning. Yes you have. And yeah, what the research shows is if you're uric acid. So if you want to get labs looked at, if it's over 4.4, the switch is on.

So fascinating Betty this is really, really helpful. I think people are just having light bulbs go off right now. Oh I fell out of my chair when I get right.

Yeah. So so we've covered really about what's really going on with cellular metabolism here and what's turning on the fat switch in the cell. And you've just, you know, schooled us all.

Oh what causes uric acid levels to go up and how that how I find examples of that outside in nature with animals as well. Now let's talk a little bit about genetics and mitochondria.

So genetic analysis I mean we see it all over the place. It's so popular to find out what's happening with your genes. Do you think that there's answers in our genetics?

Is it worth it for people to get this kind of testing done? What's your what's your thought process on this? Yeah. You know, it's you know, genetics have come a long way.

So, you know, I'd say even in, particularly in the last 3 to 4 years, we've seen probably the most, most applicability. What's the word I'm looking for applicable changes to what we can derive out of our genes compared to what it was just a couple of years ago.

You know, because part of it when we look at genes, there's, you know, we have 22,000 genes and they work in combination. So they're a map. They're not individual genes working in isolation.

And when we look at a lot of those genes, many of them overlap. Right. So some of the things that we look at for overlap. So there's several genes that are important not only for women from an estrogen metabolism standpoint, but they also affect adrenal hormones, things like adrenaline noradrenaline, dopamine.

Well, what's interesting is some of those mutations. One of them is Co methyltransferase or com t. And its job is to basically help you exit estrogen and xeno estrogens and toxins out of the body.

It also helps you recycle your adrenaline and get it out of the system. Well, when you start digging in the research and looking at it, women who carry mutations and Conti have a greater likelihood of guess what?

Central adiposity, metabolic syndrome, diabetes, sleep disruption, libido problems, estrogen sensitive cancers.

Genetics, Hormones, and Weight Loss Resistance

You know, again I happen to carry a mutation. There's three main genes I carry read on every single one. So I have a I have all of them. And so you know so when we look at that we go okay what does that mean to mitochondria.

Well you've got the mitochondria in different places right. So we've got mitochondria in every different cell. Well we have estrogen receptors on our fat cells on our subcutaneous fat.

The stuff that we hate, the jiggly bits, the junk in the trunk. Right. The stuff that we don't like to see. Well, as we go through menopause, those estrogen receptors send to go at the estrogen receptors die off.

But we also get a lack of stimulation to the adrenal receptors on a subcutaneous fat. So it seems like you can't ever get it off your abdomen, off your hips and thighs.

Well, some of that is because we have Co methyltransferase in that's affecting whether you're recycling your epinephrine norepinephrine quickly or not.

So for those that have changes in that calm T function, where that enzyme may be either overexpressing or under expressing or maybe experiencing some of these other things that affect the mitochondrial function of those nerve cells, their ability to innovate the fat cells and actually mobilize the fat out, because we have to have epinephrine that pulls the fat out, adiponectin picks it up and throws it out, and epinephrine is supposed to carry it away.

But we won't be able to do that if we've got all of these hormonal changes that are affecting those receptors capacity to do it, you know. So that's just one example.

There's several other ones in the detox pathways and other things that can really affect cellular metabolism, but that's just one that you have to look at it as a much bigger picture.

It's not just getting 1 or 2 genes and going, I have that. I'm going to take the supplement. Oh, totally. It's just, you know, it's just one bit, one little piece in the huge toolbox that we use in functional medicine to help figure out what is uniquely you and what will best support you to get to your goal with energy, with weight loss, with resolution of chronic health conditions.

So what I'm hearing is you use it as a tool, but it's not it's not the only thing that you're going to look at. No, it's just a piece of the pie, because the other part of it is, you know, obviously your genetics is kind of the foundation of your house.

So if you've ever built a house, you walk up to it, you go, okay, great. I know how wide it is. I know how deep it is. I know where my plumbing is, but it doesn't tell you if it's a if it's modern shaker colonial, that's your epigenetics, how you build that house on top of it.

And if you were built for a single storey Texas ranch house and you build a three storey condo with a pool on top, by how you live, you're going to mess up your DNA, right?

You're going to mess up your genetic expectations and your expression is going to be bad. But once you know how you're built, then it makes it much easier to modify what you're going to do with that house and how you're going to decorate it in a way that's meaningful.

Yeah, and here's the good news you can redecorate it and redecorate it and change your mind and do something different. You can blast out a wall and add to it, but you got to know what you need to do first, right?

Because your epigenetics are movable, changeable, repairable, right? Yeah, that's the exciting part. So let's get into talking about other key hormones that could be causing your weight gain and weight loss resistance.

And what is it getting talked about? You know, in the mainstream discussion of weight regain and weight loss. Yeah. So you know so I alluded to a couple of them.

It was that kind of very simplified. Oh just make insulin go down and you'll just burn fat like the most perfect fat burner. So that one's one of the first misconceptions.

One of the second ones is, is that our hormones are a symphony. So, so our hormones are a symphony. And each each section has its role. So we have the adrenal.

So the percussion, they set the pace and they set the, the kind of tone. Right. So if your adrenals are playing scat jazz and the rest of the orchestra thinks it needs to be playing a waltz, we're going to have a problem.

So the orchestra is going to start shifting, right? So we have our adrenals, we have our thyroid hormones that set metabolic rate. Well, I don't know about you, but I know I could probably count at least 60% of the women that I see will say, I swear I have hormone problems, and I swear I have thyroid problems.

I know I do, but my labs look normal. I'm like, I know you have thyroid problems and you'll have to look normal because these hormones interact with each other.

So when we're looking at whether it's insulin sensitivity at the cell or it's the ability of the thyroid hormone to actually turn that cell on, we've got other hormones that play.

So for instance, if you've had elevated cortisol, and cortisol can either be free and out and working or it can be metabolized. And only about 5% of your cortisol is actually free, right?

So that there's very little that's acting in that moment. But metabolize cortisol is actually where we can see how much you're really building and how much you're really doing.

Depending on how it's metabolized, you could be making it into these metabolites that actually block the receptor on your cells, particularly muscle cells for the thyroid hormone.

So you go look, you're T3, which is the active thyroid hormone, looks normal on labs. You might be taking T3, but nothing's changing. You know, nothing is changing.

And it's because there's other hormones at play. Your cortisol metabolites may be a play. You may have estrogen. So if you're in perimenopause to menopause estrogen is interacting along with those hormones.

So it doesn't matter if you're trying to do just drop insulin or you're just trying to work on thyroid, you can't remove the other hormones because a symphony can't create a epic music experience without all of them playing together.

I love how you're talking about this like a symphony. Yeah, if you got it. This is some complex stuff we're talking about. And when you can break it down into these easy to remember pieces, just like, you know, building a house with your genetics, you're working with a symphony, with your hormones.

What do you do to help women rebalance that symphony? To get it working again, to improve cellular metabolism, to get those mitochondria on line and help women be able to lose that central weight, be able to gain energy, be able to have even energy to heal the chronic health conditions.

Yeah. And then I look at it and go, how can we leave our mark on the world? Because that's my thing. It's one thing of this season of life that could change the world.

Like we aren't happy with what the world is doing. We have the power because we're actually better at lots of things to create change. No offense to any men, but women can really be harnessed ourself and felt better. We could get a lot done so.

So when we're looking at it, you can't. So any every hard charging woman always tells me there go Betty. You know I can I can do the food. I can hire a cook.

I can order food to be delivered to my house and everything else. When we start getting into the lifestyle pieces, they're kind of like, whoa, whoa, don't tell me to cut back my work.

Don't tell me to, you know, try and get more sleep. But the truth is, is we have we have to do some level of self-care because. Because there's only so much you can, you know, drive that car without oil in it before it just dries up.

So you have to address that. So we look at the foundations of, of really good lifestyle, which is protecting our sleep and getting high quality sleep.

I mean, I use an aura ring. My patients use an aura ring. We get serious about really getting mathematical and looking at that stuff and like, let's, let's get some data right.

What's really happening? Because we may not know what's really happening. And then the other thing obviously is we have to identify. So we need to test and find out where you're really at, because two people can show up looking similarly and have a completely different metabolic profile.

Some of these things are true, but how you may need to address them might be slightly different. You know? So I think it's important to look at your hormones and know your DNA and, you know, look at cellular metabolites and other things to figure out what's really going on.

And then it's usually a multi phase approach because most people because we kind of want to get something done and see some movement, we'll often get on this train like I'm going to do this diet for X amount of weeks or days or months, right?

Usually weeks. And I'll get some modicum of change. But I look at it as this distinct thing, I'm going to do this, and then I'm going to kind of go back to doing these other things, you know?

So I have a multiphase approach. The first part is, you know, pretty hardcore because we want to make some change, making things happen. But the goal is to create metabolic flexibility over time.

So we become a lifestyle, not a diet. Because diets don't work. They flat out don't because we have to fix all those other things. But we definitely have to address the lifestyle piece.

You can't. Yeah. You can't overlook that. Yeah. So give us some other tips. Besides, you know, I mean, how do you how do you handle the woman who is, you know, in charge at work and she's in charge at home and she's also got, you know, dreams and aspirations and maybe she's busy in her community.

What what kind of lifestyle changes can she make and still be able to feel like she's keeping all those balls in the air? Yeah. You know, it's funny, I just did a, podcast on this.

Lifestyle, Energy Boundaries, and Where to Find Betty

So one of the things that's come out a lot with the women I work with and myself, I mean, I work on you work on what you need to work on. Right? And you work with who you need to work with because you're still working on you.

Right? So I struggle with this just like anybody else. But what I find often is somebody that's the CEO, because, like, I have a nonprofit, I have a podcast just way too much.

And and at the end of the day, often we are still supporting others in a way where delegation and, you know, holding people accountable with love and affection and not bubble wrapping everybody and taking care of everything for everybody.

Because a lot of times we just sort of we sort of circulate around somebody like a moon to a planet and make sure everybody gets taken care of. And if a little thing flies out to us every once in a while, energetically we'll take it.

So often what it means is sort of taking our power back and giving people back their crap, right? It's not my monkey and it's not my it's not my circus.

You know, it's really, really true because a lot of it, we just go, oh, I've got this backpack on my back. So every time something happens or something useful comes up, I throw it in the backpack because I might need it.

And oh, you know, my my partner missed this. My kids didn't get that. So I jump in and do their homework for them or whatever, put that in a backpack or, you know, somebody fails to do something at work.

So instead of a handing it back and instructing them on how to do it and going through the pain and suffering as of them trying to kind of learn it and, and, you know, you could do it better, faster.

We take it on and we just do it. So we have to learn how to delegate and have to and how to take our energy back. So we have an energy therapist in my office who's worked with me for 17 years, and she told me this, and it's extremely profound, she said, the energy in which you put out.

Right. So the energy we have, our energy body, you know, if you've ever walked into a room and, and, and two people were fighting in that room right before you walked in, you didn't hear it, but you can feel it.

That's the energy. That's the energy transference between people. So we have this energy body. She said that the more energy you put out to take care of other people, with nothing coming back to you, your physical body will expand to meet that need because it must ground you.

Wow. Right. So for everybody that's struggling with weight, and I've spent a good decade being a nutritionist, functional medicine expert and believe me, I worked with all of them overweight because I could not get it under control.

And some of this was this, you know, and it was like, wait a minute, I have to I have to pull it back. And it's so uncomfortable for hard charging women because we kind of been trained to like, take on other people's stuff, you know?

So I think that's a really big piece of it. And it's a constant sort of regaining by giving stuff back. That's super profound. Say that one more time.

Yeah. So, so the level in which you expend your energy in love and affection and probably desire to help other people, so however much your energy goes out.

So I'll give you some good examples. Somebody calls and they need cookies for school tomorrow. And you just got home at 8:00. You have 100 things to do.

You got a migraine, but you still do it even though you want to say no. But you say yes, right? All the other things like kids homework partner can't handle this, so you take care of it.

You know, employees not doing their jobs, but they've been there for forever. So you just kind of bubble wrap them and take care of them and rearrange everything to make it happen. So.

So the level in which your physical body, your, your, your emotional state and your emotional energy and all that energy you send out expands your physical body will expand to meet that need to ground you.

So good. That's just like a mic drop right there. It's true, it's true. And and especially you know, I'm a I'm a I'm a Type-A. I like getting stuff done. I'm so ambitious.

And I have to constantly check myself and go, okay, I, I love and adore you and I want to help you, but I'm going to hand back to monkey because I don't want your monkey on my shoulder all weekend, crapping in my hair and pulling my hair and eating my food.

Not my monkey, not my circus. Take it back now. My mom always used to say that. Not my monkey, not my circus. Yeah, I don't, but this has been an amazing interview.

Thank you for just dropping all your words of wisdom on us, connecting all those complex scientific concepts, with analogies and making it so understandable.

And why don't you tell us right now where our viewers can find you? What's the best place to. Absolutely. So the best place to find me is very murray.com and that's Murray.

You can also find my podcast at this functional Life. And you can find it on all podcast hosting platforms. And for anybody that's listening I do have a quiz that will, I think link to also that you can take.

Amazing. Yes, we'll get. Yeah. We'll get all your stuff linked up. Thank you so much. It has been a pleasure having you here, buddy.