Fasting Strategies For Weight Loss During Menopause Transcript

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Introduction to Menopause and Weight

For this doctor's talk, we are going to be exploring the topic of menopause, how it's related to weight, and some key things you might be able to do if you are at that time in your life, and how you can tackle both menopause and weight together.

Joining me is Doctor Felice Gersh, who is a multi award winning physician with dual board certification in ob gyn and integrative medicine. She is the founder and Director of Integrative Medical Group in Irvine, California and she is also the author of the book menopause 50 Things You Need to Know.

I don't think we're going to be able to cover all 50 of them in this talk, but we'll see what we can do. Well, we can definitely talk about the issues related to weight.

That is for sure a huge one that affects the vast majority of women once they head into menopause. Yes. So let's start there. What is the relationship between menopause and weight?

Well, it's multifactorial like so many things are in health related issues. So on one one area is what comes up in so many things nowadays the gut microbiome.

So those people don't realize how really relevant hormones are to the composition of this incredible ecosystem known as the gut microbiome. These trillions of microbes that basically are like a manufacturing center and very, very important for maintaining a healthy body composition and weight.

As a woman transitions into menopause now, menopause is a misnomer, really.

How Menopause Changes Hormones and the Gut

I just wish that we could change the name, but it's probably not going to happen because menopause makes it sound like it's all about periods, but it's really all about hormones and ovarian aging and the loss of the production of these vital life hormones.

Not sex hormones, life hormones, estradiol, the estrogen made by the ovaries, and progesterone. It's sort of sidekick. And as we go into this transition of ovarian aging, we have a decrease which sometimes little jumps up.

So it can be a little bit of a roller coaster ride during the Perimenopausal years, and then into the menopause, which is artificially defined as 12 consecutive months without any bleeding, which is just a made up diagnosis, because I have patients say, but what if I have a hysterectomy?

Does that mean I don't go into menopause? No, it doesn't work that way. So basically, we should think of it as ovarian senescence or aging of the ovaries and the decrease and ultimate loss of these vital life hormones.

Well, these hormones are very important for maintaining a healthy, optimal gut microbiome. So when you start having decreases in estradiol production, you change the composition of these microbes.

When that happens, you stop putting out or creating this protective coating, this mucus coating that protects the single lining of epithelial cells, the lining cells of the gut from the inflammation and toxicity of these microbes is like toxic microbes, and their byproducts end up the toxic things that are sometimes in our gut.

So the cells that line the gut, that are held close together by little fibers in what are called tight junctions, those little fibers start to degrade and the cells kind of drift apart, creating gaps that we call impaired that barrier or leaky gut.

And then these toxic products from inside the gut get into the body. So that can lead to what we call endotoxin, these toxins from within and know for within and toxic for toxic.

And they create inflammation. And the immune system is actually totally regulated by estradiol. And when you don't have enough, the immune cells that produce these particles called cytokines that create inflammation, are sort of like weapons of mass destruction without control.

And they have an exaggerated inflammatory response to these toxins coming in. And inflammation leads to insulin resistance. So I'm probably everybody knows this by now, but too much insulin is going to inherently create too much fat because insulin which is a vital hormone as well, you can't live without it.

That's what happens in type one diabetes. If they don't get insulin, they literally can die. Like that's a terrible thing that would happen before we had insulin.

And what happens is when one of the functions of insulin is that it promotes the production and storage of fat. And one thing that we girls think that we can do, but we cannot do, is both create fat and burn fat at the same time.

So if you have too much insulin, it's pretty impossible to lose weight and you will keep putting on on fat. So that's like one key mechanism that's not really looked at.

But we do know from many other studies that, for example, diabetics have an altered gut microbiome and tend to put on weight and maintain the fat that they don't want.

And that happens in menopause as well. So that's just one of many, many ways which you know now. And as we go through this, I'll detail, you know, the other ways.

So another is that the mitochondria, which are the energy producers, you know, so you have to create energy to be alive. And you have that's like the difference between being alive and dead is whether you can make energy.

And when you create energy, you burn fuel. Right? So the fuel could be glucose or it could be fat. And you need really robust mitochondria. And it turns out that estradiol, the estrogen from the ovary, is essential for optimal function of these energy producers, the mitochondria.

So when you don't have enough estradiol, you really become impaired in your ability to burn fat and glucose. So you end up being more insulin resistant.

You end up storing fat. And we'll just, you know, let you all pause here that then we'll we'll carry on because there's so much more to say. Yes. I mean, you broke that all down really wonderfully, but like you said, multifactorial.

Really complex. Right. Lots of different things going on here. Are female hormones that are affected. Insulin is being affected. The gut microbiome. So that is a lot of an explanation right there.

So can you explain how those things are making weight loss hard?

Why Weight Loss Becomes Harder in Menopause

Well, absolutely. So when it turns out another very key thing is adipose tissue or fat itself. So it turns out that fat is both fuel because we burn fat when we need to have fuel when we run out of glucose.

But it also is an endocrine organ. So among it's different hormones that are called adequate kinds or two that I'll mention. One is leptin. And leptin is a very important add up a kind of hormone produced by adipose tissue, which helps to control appetite, which is a very big deal because it one of the things that happens in menopausal women is that they have a dysregulated appetite.

They often cannot tell that they should eat, stop eating. Rather, they just always can eat. And another important out

of a kind or adipose created hormone is adiponectin, which actually is a burner promoter.

So it helps promote the creation of ATP or energy and, you know, activates this process of creating fat burning. So you end up with a problem here where you have a dysregulated appetite and dysregulation of the ability to initiate the process of creating energy and burning fat.

So many women, as they get into the menopausal years, develop things like cravings and binge eating disorder. In fact, there's actually some articles published showing that giving an estradiol patch placing an estradiol patch on a woman can actually help curb binge eating, because estradiol will help the production of leptin, which is so important for helping to control appetite.

So that those are two more things. So it's just so, so many constellations, like the perfect storm that you can't burn fat, you have dysregulated appetite, right?

And then another big thing is your master clock in your brain. So the master clock called the super charismatic nucleus is a collection of neurons that sits atop the optic nerve in the hypothalamus portion of the brain that can sense light, you know, so that knows, like if it's morning or if it's night and also has some nutrient sensors.

And what happens when you don't have enough estradiol is that this clock and the term that's used is it drifts. So it's can't keep the time properly. So basically after menopause you're like living a life of jetlag.

Now there's plenty of data on jetlagged people like flight attendants or people who work the night shift. And so on. And that's a big portion of the population, and that's a contributor to more mood disorders, cancers, sleep problems and weight gain, insulin resistance and diabetes because they all kind of go hand in hand all together.

So it's like you're living the life of jet lag. And on top of that, sleep becomes a problem. And we know that people who live a life of sleep deficiency also gain weight.

Okay. So you have so many things that come into play. Now the sleeping problem is a combination of often night sweats and hot flashes, which can be really distressing.

But even without that, there's alteration in like sleep functions in the brain. So you have often sleep disordered breathing. You doubled the incidence of sleep apnea, which is heavily associated with obesity as well.

So you can see where at some point it starts seeming overwhelming. It's like, am I doomed? And it turns out that muscle has receptors to estradiol, and as does bone and all connective tissue.

But muscle just focusing on muscle is the key burner of glucose. So and it's like a big gobbler, you know, of glucose in the body. And muscle doesn't function optimally when you have loss of estradiol.

So you're not using your glucose up as much. Once again, you have less capability of burning the glucose that you have circulating in your blood. And that will trigger the pancreas, the beta cells of the pancreas, to make more insulin, so that now you have even more insulin.

And it turns out that estradiol operates what are called the glucose transport system glute. I call them the glute. I don't know, but it's what I call the glucose transport system.

And that is really vital for getting glucose out of your blood and into the cells that needed for energy. So you end up once again with too much circulating glucose, which then causes more and more insulin, which causes more and more fat production and storage.

So it's, just so many, so many facets that, you know, I think you said it could be overwhelming, but, but I think the flip side of that, when I'm explaining something complicated to my patients is, look, there's so many reasons, right?

It's not in your head. And if we know the reason that usually means we can do something about it, right? If we

understand why you're having symptoms, why you're gaining weight, why this is hard.

Now we have solutions. So what are some of the solutions for women who are struggling with weight during menopause or after menopause? Well, I am so glad that you brought that up because it can seem like like you said, it's just so overwhelming.

Hormone Therapy and Early Intervention

Well, the number one thing and this is not this is not established as a standard in our conventional medical system, and it absolutely should be the only things that are FDA approved for the use of hormone therapy in menopausal women.

They don't even talk about perimenopause, because this artificial distinction, it's not crossing a finish line. It's a process. Okay. So but this artificial distinction in this, this transformation of ovarian function is for hot flashes and night sweats for bone, which is now like almost forgotten.

Nobody even gives it for bone. But it should be. That's an FDA approval and vaginal health genital urinary symptoms. That's it. But that makes absolutely no sense.

Once you understand the vital life functions of estradiol, and another day for another time for progesterone, I don't want to minimize. It's also very important.

But estradiol is like the the top of the heap for these hormones. So I actually didn't realize, what you said until just now because there has been in the last few years, a lot more attention, I think, for menopause and perimenopause.

And people are embracing using hormonal treatment much more than they had for a little while. But that makes sense. Why? Maybe they have been under utilized.

Under prescribed. If the indication was like hot flashes and you have someone coming in and they're like, oh, the hot flashes aren't too bad. But I'm struggling with energy and mood and muscle aches and sleep and those would all be things that estradiol would help.

But it's not technically what we have been taught or told or FDA approved that we should use that for. Right. So that's why once a woman gets into her 40s, the incidence of prescribing antidepressants and sleeping pills goes astronomically increased because you're not getting to the root cause, which is decreased production of estradiol and then progesterone.

Instead, they're trying to treat the symptoms with pharmaceuticals, which is a roundabout way of trying to deal with the problem. I just say if you're deficient in a hormone like, duh, give the hormone.

So number one, women starting in the perimenopause and forget these words. It's so ovarian aging process, okay, that they need to start getting on what I call hormone supplementation.

And then when they make none, then you get hormone replacement therapy. But the reality is that yes, that will help tremendously. And the earlier you get started, the better you'll have a chance of preventing that unwanted visceral, inflammatory belly fat dysbiosis, gut problems, and a whole host.

You know, like I give lectures on it for 12 hours on all the different things that occur through menopause. But you have the best chance of maintaining optimal health by starting hormones early.

Like everything in life, the earlier you get on it, the less the problem will get severe, right? So we want to get on it early. But no matter what I do when I give hormones, I can't replace the hormones to be the same as a healthy 25 year old.

I don't have that kind of power. We what we do is very good, but it's not the same as turning the clock back into

your 20s. So we have to harness all the other abilities of the body through the really the essential, which is every aspect of lifestyle medicine, which I'm sure has been touched on but cannot be under appreciated enough in terms of, or I should say over appreciate it.

You got to do it. Okay. So what does that involve? Well, number one exercise is really essential. And it's been shown. This is so fascinating when you exercise and you start working those muscles muscle like many tissues in the body has the enzyme aromatase that can actually convert androgens, most of which come from the adrenal gland.

They're like the male type hormones. Some testosterone, like 25% of the testosterone in the body comes from the ovaries. But most of the androgens actually come from the adrenal gland.

And it can convert the androgens into estrogen. So muscle, when it's exercise, can actually make its own estrogen supply to help it to work better. So that's like a miracle there.

So exercise is like magic medicine. And really is there any specific type of exercise or amount of exercise that you find yourself recommending? Well, for building muscle, which is where the weight really comes in now, cardiovascular fitness and all you do aerobics.

So you don't want to just do one without the other. But in terms of maintaining muscle mass, the best thing is to do resistance training about every other day and work different muscle groups of the body.

Exercise, Muscle, and Metabolism

I always recommend starting with a professional fitness specialist or you know, trainer to really get a good routine going. The last thing we want is to have joint injuries or something, you know, because the joints also are affected during the transition because the ligaments, the tendons are all full of connective tissue, which requires estrogen in order to maintain their proper optimal integrity.

So that's why more joint injuries occur. And osteoarthritis and so on occurs after the menopause begins. So get a really good trainer or even work with a physical therapist if if you have a history of any kind of previous injuries or joint problems, but you really want to get into resistance training.

But of course I want you robotic exercise. And if you're not going to do anything too fancy, just get a pair of of, you know, small weights. Start with like five pounders if you want and start like going online and and looking at different things that you can do.

Also, bands are so simple. You can work with your own weight, but don't just drop making stuff up, you know, at least you know, work with books. Or I just say just splurge for a trainer who's actually a trained professional to really get things right because this is like really, really important.

So we definitely want to work on on fitness and strength, you know. And that's why they talk about fitness is a vital sign. This was developed by the American Academy of Sports Medicine, the elite organization for fitness in the US.

And they came up a few years ago. And my practice embraces it. It's called fitness is a vital sign. Exercise is medicine, which so a vital sign is like your blood pressure, your pulse, your temperature.

So fitness is a vital sign you need to measure it. And fitness is associated more with mortality actually than blood pressure is like frail unfit people do not have a long lifespan.

We do not want to be like that. So and of course women tend to go towards frailty. I'm sure you've all seen women where you think you can blow on them, you know, and they fall over and break.

And so frailty is a terrible prognostic indicator for mortality. So you can do, the American Academy Sports Medicine created a fitness test that can be done in a doctor's office.

And you can actually then every year have a fitness assessment, just like you check a blood pressure. And then exercise is medicine means that you write an exercise prescription.

You say these are the things you need to work on. And you can, you know, work with us. If you have a trainer or, you know, you go and you get a like a person who actually has certification, you know, by the, by the organization, they're really a good qualified trainer to get an exercise prescription written.

If you can't do it and then just know what to work on because exercise is magic medicine. And that's why I started with that. And then the next, of course, is food.

I mean, food is medicine, you know, and what you eat is so critical. So you want to have the right amount of protein, and you want lots and lots of plants because you want those magical ingredients.

I call it the magic of plants. And this includes nuts and seeds and fruits and vegetables and whole grains. They're phyto estrogens. In fact, almost every food that's called a superfood actually contains phyto estrogens.

And one of the recent ones that's been talked about is your it's an A and your old it's an A actually is an agonist like a mimic for estrogen receptor alpha which is on bone and muscle.

And so it's actually a mimic of being on estrogen. And it's been shown to improve muscle health and function. But all the phyto estrogens are amazing.

Whether they're isoflavones which you find in like legumes and soy organic also are not processed, or lignans, which are found in seeds like flax seeds and so on.

And then there's quercetin and there's the still beans like resveratrol. They're found in red grapes. And pomegranates are a source of ellagic acid, which is another phyto estrogen which can be converted into your.

And so eating, of course, that's what I say, that the colors of the rain go for the antioxidants, the polyphenols that's phyto estrogens and of course fiber fiber fiber.

Because you've got to work to nourish your gut microbiome, to maintain healthy gut integrity, to lower that inflammatory process from endotoxins leaking into your body and creating that inflammatory response which goes down the pathway to insulin resistance and then more fat.

So we don't want that. And of course, metabolic dysfunction. We don't want to get diabetes, which dramatically increases after menopause in women. So and then of course sleep you need to have a sleep routine.

Sleep hygiene get checked for sleep apnea if there's even any question. If you wake up tired or with headaches or you feel like taking naps all day, that's a good sign that you could have sleep apnea and get that that checked.

Avoidance of environmental chemicals is like toxic. And that can interfere with how endocrine system hormones work, including predominantly estrogen. So we call them xeno estrogens.

So of course, don't put a lot of your hot food, especially in plastic. Don't microwave and plastic make your personal care products. You're cleaning products as organic and natural as possible, right?

Get an air purifier, a water purifier. So all those things are great. And stress management, mind body practices, guided imagery, progressive relaxation, massages, you know, all these mindfulness meditation to control stress because high stress causes your adrenal gland to put out more cortisol, which is going to also cause more insulin, more sugar production.

And we don't need that. Then you'll, you know, people who are chronically stressed tend to gain weight. So that's and get more insulin resistance.

Nutrition, Fiber, and Plant-Based Support

So don't minimize the the benefits of mind body medicine. That's not woowoo I mean that's like hard core evidence based medicine and hard core, partly because we've separated the mind and body for so long and our our mind, our brain is a body part, right.

And it responds to all of these things. So we've really done that a disservice as well by thinking of the mind as something, you know, nebulous. When it's an organ, it's our brain, right?

It's a body part, just like our stomach or our skin. Absolutely. And after when? Menopause, during the menopausal transition, women who has never had a mood disorder ever.

Their incidence doubles for anxiety and depression. That's why antidepressants are so prevalent in terms of being prescribed to transitional and early menopausal women.

And if you've had a previous problem like PMS, postpartum depression, your chance of having a mood disorder when you go into the menopausal transition is increased four fold.

So and we know that people who are having diarrhea and depression are also more prone to having weight problems. I mean, sometimes it's under eating, but more often it's overeating and dysregulated appetite and poor metabolism.

And another point is talking about metabolism. It turns out that the thyroid gland is really dependent on estradiol for proper function. There are extra dial receptors on the thyroid gland as well as thyroid receptors on the ovaries.

But that won't matter when you don't have ovarian function. But the thyroid gland doesn't produce thyroid hormone optimally with. And thyroid everybody knows is about weight and metabolism and so many things you cannot properly, optimally make thyroid hormone when you don't have estradiol.

And the receptors for thyroid hormone become less functional. Okay. So, we wanted to switch gears a little bit as we're talking about solutions, because I think fasting is one of the solutions that you recommend for patients.

Is that correct? Absolutely. So one of the things that has been shown with fasting is that when you do well, if you just do like, time restricted eating.

So fasting by definition is you're not eating. So there's many different ways of doing fasting. So if you do what's called time restricted eating, that would be over the 24 hours.

If you stop eating and you only eat like say three times a day and you don't snack, your insulin will tend to go down. So that's you know, you can't, like I said, multitask and have a lot of insulin and simultaneously burn fat and lose weight.

So the fewer times of the day that you eat the more you'll have times of the day when you're not eating or essentially fasting. And that's time restricted eating okay.

And the best time of day to eat is in the first half of the day. It turns out that our insulin works the best in the early part of the day. And so whatever you eat, your glucose levels will be lowered faster and your insulin will work better so you won't have as much insulin produced.

So remember, insulin is our friend except when it's too much and then it's our enemy. So we don't want to have too high insulin all the time. And we certainly don't want to have too high glucose in our blood.

So eating your biggest meal for preferably breakfast I know nobody wants to do that. So then we'll say lunch and trying to have an early light dinner, because the later you go into the day, the more insulin you will produce, because the insulin doesn't work as well.

Because we are circadian, we're like based on the 24 hour rotation of the Earth and we are just tired. Everything in our body is time we digest better.

In the first part of the day. Our insulin works better in the first part of the day will have less indigestion. A lot of people know they have heartburn if they eat late at night.

That's because our motility of our gut isn't working as well as it gets later in later. So try to eat no more than three times a day and just call them meals.

Don't say cooked breakfast. People think of crazy breakfast foods. So you want to eat whole real food and not processed foods like keep it, you know, food that didn't have to visit a factory ever.

Preferably, and try to eat more of your food for breakfast or lunch and a light early dinner. So that's time restricted. Eating then, if you do like every other day, like the five, two or every other day fasting, basically when you're doing that, you're just going to have fewer calories in okay.

So you just going to eat less when you do that. And then, you know, that will ultimately help you lose weight because you're just ultimately eating less.

You're only eating certain days of the week or, you know, fewer days.

Fasting Strategies and Metabolic Reset

But if you really want to start burning that visceral fat and the liver fat because we didn't like we don't have time to get into a lot of things like, what was called nonalcoholic fatty liver disease.

And now they changed the name metabolic steatosis. So because that's a big problem for women in menopause, and they get very dysregulated. But in order to burn that kind of visceral fat, liver fat, you need to have multi-day fasting.

But that's very hard to do. Like I can't like expect people to not have any food, just water for four days, like every month for like months on end. People won't do that.

So that's where the brilliant team under vulnerable professor Doctor Valter Longo at USC, the Longevity Institute, came up with the fasting mimicking diet, where they designed a food that you would eat for five days.

It's like, you know, it gives you like different things. You eat every day in boxes one, two, three, four, five. And they call it fasting, mimicking because they found a food combination that flies under the radar of the nutrient sensors in the brain.

So the brain thinks you're fasting. It's that's why I call it stealth food, you know, so you're eating, but your brain doesn't know it. So it triggers what the body would trigger if you were not eating anything, just water.

And that is autophagy, where you're going to have cellular renewal when you start burning. It's like it's like if you're on a boat and starts getting a leak, you're going to throw overboard everything you can to keep the boat lighter.

So what happens if you don't have food for like three days? Then the body says, well, we don't have any food coming in now. So we better start getting rid of crappy cells.

So you start killing off the yucky cells, the ones that have misfolded proteins that are creating inflammation because aging is about inflammation, inflammation due to aging due to senescent cells.

Sometimes they call in zombie cells that are creating inflammation because they're all yucky and they should die, but the body doesn't make them die. They just kind of sit there and they're like yucky old cells.

But when you do the fasting, mimicking diet, you can help trigger these cells or water fasting. If you can do that sort of thing, then the yucky cells are thrown overboard because they're using valuable nutrients that the body can't afford to to waste on those yucky cells.

And it's like housecleaning internally. Like if you don't have anything, you recycle because, you know, you got to keep using stuff and repurposing. So the body starts cleaning out the other good cells with autophagy.

That's like internal cellular housekeeping and renewal. So you get stronger, healthier cells for the ones that you have. And then the body somehow knows to get rid of the yucky fat first.

So you start burning the yucky inflammatory visceral fat and liver fat. And if you have liver fat, you have pancreatic fat, you have muscle fat, you have heart that you have this ectopic abnormal fat in different places in the body.

And that's the stuff that gets burned off first. But you preserve your valuable muscle because muscle is like gold, right? So you got to keep that muscle.

So that's the beauty of multi-day fasting. But in terms of water fast, you got to go at least three days to actually start triggering all of this good autophagy and apoptosis killing like cellular suicide of the yucky cells and that sort of thing.

So usually you'd say you do four days of a water fast and five days of a fasting mimicking diet because it's close but not exactly the same. But it's really hard to ask people to water fasting.

And it can be also some negatives too, because you don't have any nutrients. But these are the things that can really be rejuvenating. And in in animals, they have had studies that have shown longevity, but they don't have any data like that in humans.

But it also can increase, in animals they've shown like brain derived neurotrophic factor. That's brain growth factors. So that your brain is better, are doing all kinds of research.

But they have had published articles now showing that you can actually reverse like early stage diabetes, prediabetes, which of course is associated with weight gain and so prevalent in women as they transition into menopause and through the rest of their menopausal.

Years. And so these are like really the important ways to get on of this. Otherwise almost inevitable weight gain because I did not coined this term. So don't blame me for this terminology.

But virtually all women, if they're not on hormones and they don't do all this lifestyle and health related maneuvers to keep healthy, they will either gained a lot of weight and then we would call them, you know, overweight or obese, or if they keep what on the scale looks like a normal weight, but their body composition is changed.

So they actually have too little muscle and too much fat. And the term that was coined and these are very high risk people for diabetes. This is like a really, really risky group.

They call them the skinny fat. I wish they'll probably come up with a better name. But I mean sarcopenia, they look like a neat scientific, you know, one that's way better.

Let's call it the Dark Phoenix. You know, that's much better. Okay. Sarcopenia, because they don't have enough muscle. They're kind of frail. They're frail people.

And, and yes, they're they're like, basically carrying too much visceral fat. So this is a very they often when they get diabetes, they often do worse than the ones who are actually heavier.

So we do not want to be in that category either. And they often like they said, they become frail.

Healthy Aging and Super-Ager Mindset

And when you don't have enough muscle, you know, not only are you more prone to falls and fractures and so on, but, you know, because muscle is what is the biggest burner of glucose, you're more likely to get very hard to regulate diabetes.

So we definitely don't want to be either of those. Right. So we have to get on this. So it's so important to be proactive and to recognize the risk. You know, one of the things that we always do in medicine is look for risk.

Like that's what we take a history for. What's your family history. That may give us clues about what's your risk if you're a female? I don't even need to take a history.

I know you're at risk because you're going to go through menopause. It's inevitable. No matter what you do, you will. I'm guaranteeing you will go through menopause and menopause is associated with metabolic transformation.

It just is. And without recognizing this and taking proactive steps, you won't have the opportunity to optimize what could be 50% of your life spent as a menopausal woman.

We want everyone to have healthy longevity, which means maintaining a healthy body composition. It's like these are like, this is like the essence of healthy longevity, I love it. Wow.

You did a phenomenal job of breaking down so many complex, concepts, but also like giving actual things that, that we can do from hormone supplementation to, stress relief to dietary interventions.

The role of fasting, strength training. I don't know. I think we it feels like we got close to the 50 different tips. That's right. And, and I hope it's helpful because, you know, you want to not go into menopause with a sense of dread and foreboding.

Like, this is like the end of the line, because it doesn't have to be that way. You know, we want to celebrate every step of our lives in every transition.

But if we don't recognize the negatives associated, I mean, we always have to find the silver linings. And recognizing that there are so many steps we can take to maintain healthy longevity, optimize life so that I want everyone and all my patients and everyone watching to become a super ager.

So I define a super ager as someone who, at 95, can do most everything to some, maybe not as great, but what they did at 35, that's a super ager. So you can travel the world, you can navigate complex plots and movies and books.

You can learn new dance steps or games or like learn how to play chess for the first time and actually win. You know, you can do whatever you want, pretty much.

Maybe you won't climb in the Himalayas, but you know you can climb up. I don't know that I could do that at 35 either. I'm not doing that right. But maybe you do or don't want to ski.

But you can do most everything. Like you can have adventures. You can learn new things, you can have fun, you can have conversations, you can navigate airports without a wheelchair.

You know you can do it all. That's a super age. And to be that, you need to have the proper body composition with good muscles and bone, connective tissue, and of course, good cardiovascular system and neurological system and the brain and everything that you do to improve your weight is going to improve every organ system.

Well, thank you so much, Doctor Gersh. If people want to connect with you, find more. Where can they find you? Well, I work in my office. I'm still an old fashioned doctor.

You know, like you, I see patients, and I have a brick and mortar practice in Irvine, California that's in orange County, Southern California. And I have my book and I have my Instagram live that people I'd love for them to follow me.

And I try to do educational little videos every single week, and I post everything on my YouTube channel. So I'm I'm trying to help change the paradigm of what it means to be a woman going through menopause, to have healthy aging.

I love it. Well, thank you so much for joining me for.