The Truth About Why Mitochondria Health Is Vital For The Menopausal Transition

Dr. Sharon Stills interviewing
Laura Frontiero, FNP-BC

Dr. Sharon Stills
Hello, hello ladies. Welcome back to Mastering the Meno(Pause) Transition Summit. I am still your host, Dr. Sharon Stills. Always a pleasure to be here with you all. We've got another great, great topic. It's a topic we really haven't touched on, and it's such an important one that ties in with hormonal health that maybe you don't even think about, 'cause we're gonna be talking all about the mitochondria today. So grab a pen, grab some paper. You're gonna wanna take notes. We're gonna get lots of good information to help you on your hormonal journey and I couldn't think of anyone better to do that with me than my dear friend and colleague, and also Dr. Summit host, she hosted the Mitochondria Summit. So when I tell you I'm getting the best of the best, I mean it and her name is Laura Frontiero.

She's served thousands of patients as a nurse practitioner over the last 22 years. She's been in healthcare the same amount of time as I am a long time, a long time. And so her work in the health industry marries both traditional and functional medicine and she has a signature system that helps you reclaim what she calls the energy edge. And for each person it's about a unique journey back to their peak mental, physical, and biological performance. And I love this line, I needed to make sure I read it when your body is bio-optimized and you're operating at your energy edge. Laura says you are unstoppable, productive, happy, and fulfilled. And what more could you want? I love that, I love that, I love that. So welcome, Laura. It is fantastic to be here with you.

Laura Frontiero, FNP-BC
Thank you, Sharon. I'd love it when we get together and have so much fun on these talks.

Dr. Sharon Stills
Me too, I know, you interview me, I interview you. We share the knowledge, it's fantastic and I'm so excited about our topic for today. So before we dive into all things mitochondria, I'd love for you to just share with the audience who you are and how you got into this and maybe you can throw in the pet deer story growing up, because I love that.

Laura Frontiero, FNP-BC
Great, I did have a pet deer. Well, let's start there because that was pretty early on in my life. Well, I'm a native Californian and I lived near Truckee which is near Lake Tahoe and we lived in the forest and it's a true story. I did have a pet deer. We got it as a fawn. It was saved out of the drowning in the American river, during a forest fire. It was fished out with a fishnet and it was given to us to raise it because we had acreage. And literally, the deer slept with the dog. It played with us, it was in the house with us. We fed it with a goat bottle. It was pretty amazing. All the Lyme people I know go, "oh my gosh, did you get bit by a tick when you were with that deer?" I don't think so, but it was pretty amazing. And I always tell people, I had a really blessed childhood because "forest bathing" is a thing right now, get out in nature, it's so good for us especially those of us who live in an urban area, which I do now.

I forest bathed every day of my life, that was normal. I literally went out and climbed trees for reals. I'm the kid who walked uphill, both ways in the snow to and from school. It's no joke. There was an uphill part of the walk and then there was a downhill part and when you came back the other direction, it was up and down. So it was literally uphill both ways and I did walk in the snow so I had a blessed childhood, but I always knew I wanted to be a nurse when I grew up. My mom was a nurse and I actually sat down and read the course catalog my first year of college and I tried to not be a nurse. I read the course catalog, cover to cover and tried to pick a different major and I couldn't do it. It was destined to be. And so I became a registered nurse very shortly thereafter, became a nurse practitioner, spent 20 years working in the traditional medical model for a big HMO. And it was about 20 years into my career that I started to learn about functional medicine and what this was. I had no idea and I really had an eye-opening experience of

wow, I have missed out on a lot of possibility for helping people heal their bodies, reduce their chronic health conditions, get rid of inflammation, get rid of all the irritating symptoms. I can remember people would come into my office year after year with symptoms that nobody could seem to fix. I have bloating, I am so tired. There must be something wrong with my thyroid or my doctor keeps telling me I'm depressed, but I'm not depressed. And I just know there's something wrong with my brain, but everything checks out normal. What could possibly be going on? And of course we blow these people off in Western medicine because we just don't have a good fix. We write some prescriptions, we run some tests and say, oh, everything looks good. Don't know what's wrong with you. So, when I found functional medicine and I learned how we can really help people resolve a lot of these irritating health problems and decrease chronic health conditions and decrease cancer risk, that's where I wanted to be for the rest of my career. So here I am.

Dr. Sharon Stills
Glad you are, and with how passionate you are and how much knowledge you have, I would never know that it was fairly recent that you made the shift. I didn't realize that.

Laura Frontiero, FNP-BC
Yeah, it's like drinking from a fire hose, right? As soon as you find something that you love and you wanna learn it, you just can't learn it fast enough. So I really was a self-study and bio-regulatory medicine is the latest thing that I've been soaking up and learning but I just did what you do. I took all the classes at the Institute of Functional Medicine and I got mentorships with different people to teach me everything they knew. And then I just instituted everything I learned like, just go, start helping people and people got results so I knew it was on the right track.

Dr. Sharon Stills
Maybe there's people listening who, they're in the same place that's how kind of I got into it. I got married young, I had my kids young and then I got divorced young and I was so obsessed I had learned about naturopathic medicine and I was so obsessed with it. I was just reading everything. There was no internet back then so it was just whatever books I could get my hands on and then when I got divorced and thought, well, now I have to make a living for myself. I was like, I wanna do what my passion is. I wanna love what I do for work and so that's why I went and pursued it. And so if someone's listening

and you're obsessed, you too could make this your career as well. It's never too late. There's always an option. There's always opportunities, so I love that. It's so inspiring.

Laura Frontiero, FNP-BC
Yeah, thanks for asking about the journey because all of us have a journey, right? All the people watching have a journey too.

Dr. Sharon Stills
Yeah, and the journey I was talking about this on one of the other interviews that the journey is what's so important. Destinations are nice, but it's really who you are and what you're embracing and what you're embodying as you're walking the path on your journey. So mitochondria, I just love that you did a whole summit on mitochondria because you don't really think to do a whole summit on mitochondria, but the mitochondria is such an important piece and sometimes overlooked. They're getting their place in the biohacking world now but what made you follow mitochondria and wanna really devote so much time?

Laura Frontiero, FNP-BC
That's a good question. And of course there's always a mentor somewhere. So when I think back on my early years, I can remember one standout professor in microbiology and he was obsessed with one little bacteria. He loved to teach about Neisseria gonorrhea. So gonorrhea, he was obsessed with it. And then fast forward to my functional medicine training and I had a professor, a mentor obsessed with mitochondria, obsessed, and they have origins in bacteria, by the way. I mean, nobody wants to get gonorrhea, but you want lots of mitochondria but anyway, the point is I had a mentor obsessed with mitochondria and really learned from him that you really couldn't heal the gut or heal the gut brain access or reduce inflammation or fix anything if you didn't also support mitochondria along the way and so that's really where it came from. So when I decided to do another summit, it was like, what is the most foundational thing I can teach people? I'm a gut health expert, right? Like I live like 90% of what I do is around gut health, but I know that I can't help you solve that problem if we leave mitochondria out of the equation. So that's why, because they're foundational.

Dr. Sharon Stills
Exactly, and it is this overlooked when I'm working with a menopausal woman, we always gotta look at the mitochondria when I'm working with a patient dealing with cancer diagnosis.

Laura Frontiero, FNP-BC
Yeah.

Dr. Sharon Stills
Mitochondria, autoimmune, it's always back to the mitochondria. So for the women listening who are thinking Mito- what, because maybe they've never heard that term. Can you explain what the mitochondria is? We'll get a page and then we'll go on our journey.

Laura Frontiero, FNP-BC
Totally and I really like to talk in super simple, easy to understand terms, because I remember when I was in biology classes in high school, it was really fun dissecting stuff. And if you're into science, all that stuff's really fun. The labs. And then the day that we started to talk about the Krebs cycle and ATP energy production and the electron transport chain, I went, oh my God, this is so boring. I don't wanna do any of that. It's so boring. So that piece of mitochondria, when you start learning the science of it, it's kind of boring. There's people who get super excited about it so I promise not to talk about it like that. And if my biology teacher would've explained mitochondria the way I'm about to explain it to you, maybe I would've had a much faster journey to functional medicine.

So anyhow, the mitochondria think of them like your life force, they are called the powerhouse of your cells because they're responsible for 90%, 90% of energy production in the body. I like to break down energy into two parts because people come to me all the time saying Laura, my energy, my energy's so low, which is why I like to talk about the energy edge. And you really gotta have that energy edge to enjoy all parts of your life. That's physical energy. That's kind of the energy that we notice. At two o'clock, do we have a slump and do we become unproductive? Or do we have a particular time of day where we peak? And that's like really good timing for us and the rest of the day we spend exhausted. That's kind of that physical energy or the energy we have to exercise. Do we get through the exercise or does it just exhaust us before we hardly get started?

Then there's this invisible energy. And that's the energy that you don't realize is happening inside of your body. So the invisible is a higher level of cellular energy. It's required for gut healing. It's required for restoring your immune support. It's required for manufacturing hormones. It's required for breathing and heart beating and digestion and your immune system firing literally everything and that's the invisible processes that are occurring and it's all energy whether you feel it or you don't physical versus invisible. So there's kind of like the big thing that mitochondria are responsible for. So of course, Sharon and I both, we know that mitochondria are responsible for a lot more than just making energy. That's what they get their big reputation for. And we can talk about some of the other things mitochondria do today but the other thing I wanna share with you is the significance of what they are and what they do in terms of location, their living conditions and their function.

And I like to explain this in terms of comparing you to a house plant. So bear with me because house plants and mitochondria actually have a lot in common and house plants are really popular right now. Everybody's decorating with house plants, thank goodness, because they're so good for our air quality and everything, but okay, so here we go. Mitochondria are a lot like house plants. They live inside of our individual cells, which are located in our organs, like our brain, liver, kidney, heart, muscles, or wherever they're located, which are located in your body. So how is this like a house plant? Well, if you think about a house plant lives in a pot, kind of like a mitochondria lives in a cell, a house plant is in a particular spot.

It's on a shelf or it's hanging and it's in a room like it's in the kitchen or it's in the living room or it's in the bedroom or the bathroom kind of like mitochondria. Some are suited for your liver. Some are suited for your brain. Some are suited for your heart and they won't survive in other locations. So for example, a liver mitochondria is really good. It has a job of helping your whole digestive pathway or your whole detox pathways rather, and detoxing in the body. Whereas a house plant that wants a particular condition, like a damp, bright, sunny spot might do best in the bathroom next to the window. And it's not gonna survive if you put it in the dark bedroom. So kind of the same with mitochondria. Are you following me here?

Dr. Sharon Stills
I'm watering the plants, I'm watering the mitochondria.

Laura Frontiero, FNP-BC
Exactly. So location of mitochondria matters just like location of house plants and then we talk about living conditions. So given the right conditions, mitochondria will thrive and grow. They'll reproduce. They'll take really good care of your body and house plants are kind of similar. They need the same things as mitochondria. So they both need clean water, they both need sunlight. They both need nutrition. And the funny thing is that studies even show, if you talk negatively to your house plants, if you treat them badly verbally, they will have stunted growth. There's actually people who researched this and mitochondria are kind of similar. If you are in a stressful, negative life situation, then they are going to suffer. There's so many similarities. And then finally let's talk about function. So house plants create this life giving oxygen that helps remove toxins and they help remove toxins from the air as well.

If you put house plants all around, you will get nearly the same effect as if you had air purifiers. It's pretty incredible. And mitochondria, similarly they create this life giving ATP whereas your house plants are creating this oxygen. You're getting this life giving ATP and oxygen is important in that process as well, by the way. And then they also assist in the detox pathways to keep your body flushed of toxins and they remove toxins from the body, just like your house plants are removing toxins from the air. So you see, your mitochondria are a lot like house plants. So that makes it easy to understand. The thing is, mitochondria are tiny though. They are the ittiest bittiest, you can have thousands of them in one cell it's quite remarkable. And they're in every human cell almost with the exception of your red blood cells. And they make up, like I said, 90% of that cellular energy. So, what would you add to this Sharon? Anything else on there?

Dr. Sharon Stills
I'm still back thinking about the Krebs cycle and I was laughing to myself 'cause I'm thinking I like to geek out on biochemistry, but I'd much rather geek out on energetics and emotions and meditation and things. But I remember when I was in med school and biochemistry and I took that big Krebs cycle and we had these posters and I just said, I'm just gonna hang it on the wall above where I sleep. And every night when I would go to bed, I would say, please just drip down into me as you're coming down the Krebs cycle and the electron train transport and just drip into my brain while I'm sleeping so I can pass my tests and pass my medical boards and help patients and understand biochemistry and I think it worked.

Laura Frontiero, FNP-BC
I know, I know, thankfully nobody watching here has to quote the biochemistry to pass the test of watching this summit.

Dr. Sharon Stills
I love your analogy, I love the house plant analogy. I always use that analogy, just simply for hydration, but this just takes it to a deeper level so I love that. I love that. We can really think about that and how house plants are so healing and they do detoxify our air and we have all these natural things at our disposal that can really work with us to help us clean our air, clean our bodies, produce energy. So I'm a big fan.

Laura Frontiero, FNP-BC
Yes, they're pretty important little guys.

Dr. Sharon Stills
They really are. And yeah, when you had talked to me, you asked what else would I add and when you interviewed me, I always loved to talk about the mitochondria and the whole maternal 'cause they come from our mother and the whole feminine energy. And I'd love to just bring that up here because we're a society of women watching this, transitioning through perimenopause, through menopause, maybe we're even before, we're pregaming we wanna just have hormonal health our whole lives. And the mitochondria are a lineage from our mothers, from the feminine side. And so, to me on an energetic level have so much to do with our self love and how we exist with other women and sisterhood and friends and sisters and daughters and grandmothers and mothers and aunties and all of that. So I love what they represent both energetically and also physiologically because as you said, we gotta have energy and I just love your tagline. I'm gonna read it again. We wanna be unstoppable and productive and happy and fulfilled. And if you don't have energy and you're lying on the couch, it's gonna really be difficult to step into those very important qualities to live a fulfilled life and that's what we are talking about here, which is why it was so important for you to come on and educate about this topic.

Laura Frontiero, FNP-BC
Yeah.

Dr. Sharon Stills
So, why is mitochondria vital? We've got menopause on the mind now. Why is mitochondria vital for the menopausal transition? Help the ladies understand who are listening.

Laura Frontiero, FNP-BC
Yeah, yeah. So, mitochondria have many functions and there's three main functions that we tend to like get a lot of lip service, which is cellular respiration, energy ATP production, cell danger response. Those are kind of some of the big ones, but there's a lot of other functions of mitochondria as well Calcium homeostasis, promoting cell growth and multiplication, hormone production. There's estrogen receptors inside of the whole mitochondria matrix and as estrogen depletes, mitochondria respond to this. And so working with somebody like Sharon, where you're going to really learn about how you can support your estrogen as you transition. As a premenopausal woman, I mean, I'm close, I'm gonna be 50 this year, I'm perimenopausal and I'm starting to think about how am I gonna support my estrogen right now how am I gonna support that Estradiol as I lose it because I wanna keep my bones strong and I wanna keep my brain strong and this is really vital and mitochondria do play an important role in this as well.

Mitochondria promote cell growth and multiplication. They're responsible for clearing out and cleaning up what shouldn't be there. So think of 'em like little cleaners of cells that are no longer healthy and they generate oxidative radicals, which in small amounts are really good for us, but in large amounts can really harm us. They support our nervous system function. They help with organs and metabolism and they synthesize molecules. So you can't get through menopause in a healthy way, if your mitochondria aren't supported and growing and multiplying and it's foundational. This is so key to healthy menopause and menopause is a state of health everybody.

Dr. Sharon Stills
Yes, absolutely and I love that. We talked about some of the other, because we do think about mitochondria as, oh, it's ATP production, but they are so involved in so many different things that are crucial for life processes. And as you said, like the ROS species that are produced, it's all about balance and balance is so important. Physiologically, energetically, because too much of that is no good and then you've got free radical, and you're heading towards cancer and apoptosis is outta control and cancerous cells are

growing, but in the right balance, we need that. We need those reactive oxygen species for vital cell functions, for cellular health, and so.

Laura Frontiero, FNP-BC
Yeah, let's talk about that for one second 'cause I think this is really an important concept. So we've all been sick before when we have extreme fatigue that occurs, that goes along with whatever we've got and we could just use COVID for an example right now. It causes exhaustion. People are just dragging. And part of that is on purpose because your mitochondria are sitting there regulating this whole immune system response that occurs and when the virus is in your body and wanting to multiply and thrive and take over, it's gonna use your body's ATP, the energy that is produced by your mitochondria to reproduce and take over. And so what do your mitochondria do?

They tamp down on the energy production to kind of starve energy away from the virus and yes, it makes you tired, but it's actually part of your immune response to protect you similarly to how you launch a fever, it's uncomfortable, but it's burning out the infection and same thing. We're starving out the infection by lowering that energy production and then a few weeks later, once you get past that hump energy production typically goes back up. Now, if you started off in a really highly toxic state or not healthy, you might not get your energy back so fast but if you're having good healthy practices to keep your body healthy, you'll bounce back in a couple of weeks after that infection. And that's an example of how it's really healthy to have that reactive oxygen species occur during that inflammatory, the shut down of energy production

Dr. Sharon Stills
That's a fantastic example and so important to really understand that and that why when you're sick, pushing it is not a good idea, like you're supposed to be tired, the body needs to rest and that it takes a couple of weeks. And I always think about that because I always have this process like after I had COVID, it's like, you're really sick, then you're better, but you're still tired and then finally, you've got your energy back. And like, to me, people are like, are you feeling better? And I'm always like, well, yeah, I'm better, but I'm not exercising yet. And to me, it's always that when I get to that point, it's usually a couple of weeks later after being ill where I'm like, okay, I can go back to exercising now. I know I've fully healed and you just explained the physiological process that's going on what's occurring and so look at that ladies permission to rest when you are not feeling good

Laura Frontiero, FNP-BC
Just imagine.

Dr. Sharon Stills
So take it to heart and embrace it. It is okay to rest and slow down.

Laura Frontiero, FNP-BC
It's okay to call in sick. It is, it's important. Yeah.

Dr. Sharon Stills
You need to lie down. I mean, me personally, every time when I don't feel good, the first thing I do is 'cause everyone else is like "Dr. Stills, what are you taking? What do you do?" When my kids were young, "what do you do for them?" And I'm like, the first 24 hours of any illness, we're not doing anything. I'm just going internal and saying, Hmm, wonder why my body needs me to go slow down. Where am I out of balance? Where have I been pushing it? Where am I not living in alignment with my beliefs or my passions? And that's my first 24 hours of being ill is just introspection. Then we can go get the vitamin C IVs or whatever we need, but it's a time to go internal and rest. So you mentioned gut health and I know that you say that you you have to look at the gut that they're connected, very intimately the gut health and mitochondria. So let's tackle that topic. Let's do that conversation now. I think that's a good one.

Laura Frontiero, FNP-BC
Okay, good. So I think we can all agree that in order for mitochondria to survive and thrive and do their job, they need nutrients, which primarily comes from the food that we eat and that comes into the gut first. So it's simple to understand that the food we eat goes to one place first, your gut microbiome, your digestive tract and into your gut microbiome. And in that space, the food is digested. It's broken down into smaller parts and our body can then utilize the nutrients but here's the thing. Your body can't do any of it without the help of your microbiome and your mitochondria. Now your microbiome is made up of three main things. This community of trillions of bacteria that live inside of us, plus the immune and the neurological axis that regulate everything and help it communicate with our body. And so how mitochondria come in here is they are stimulators of the same immune and neurological systems that interact with your gut. So for example, when we get food poisoning, which I'm sure everybody has experienced

that, it's a communication back and forth between the mitochondria and the microbiota, the bacteria that regulate the body's immune system response and what's happening here is two different sets of organisms, bacteria, gut bacteria, and mitochondria are communicating back and forth to keep everything going smooth and healthy. Hey, immune system, over here, we need some help. Now your mitochondria help facilitating that communication. And what goes wrong here with your gut is first and foremost, dysbiosis, gut imbalance. It drives inflammation and inflammation drives it. It's this big circular hamster wheel of disaster. When you have an overgrowth of this disease causing pathogenic bacteria, inflammation increases, and inflammation is damaging to mitochondria.

Probably one of the most damaging things to mitochondria is inflammation and we can talk more about what causes that in the body, but the most up to-date research actually shows that the thing that affects mitochondria the most is uncontrolled inflammation and its link to long term chronic, not just short term acute responses to an injury. So this is a problem. Now mitochondria cannot regulate your energy production when inflammation is going on and if you have gut dysbiosis, leaky gut, and you've got undigested food particles and chemicals and toxins leading into the bloodstream, you've got inflammation going and you've got this, out of control flaming fire over there and this just makes everything not work correctly and you don't create hormones. You don't produce hormones like you're supposed to, you don't release hormones like you're supposed to, you don't digest food the way you're supposed to. You don't make neurotransmitters for your brain like you're supposed to, you don't assimilate vitamins in the gut like you're supposed to. So you see that without the gut being in working order, it's kind of like kicking over the domino that just everything else falls apart from there.

Dr. Sharon Stills
It starts in the gut.

Laura Frontiero, FNP-BC
It starts in the gut. Well, yes. It's arguable that you can't really heal the body unless you work on gut health and also mitochondria health. There's a lot of important parts.

Dr. Sharon Stills
Yeah, I think if you go back and look at embryology that we started as this gut tube and all our organs, everything buds off of there and I think that's why there's such a ancient and neurological connection and why we can really look at the gut as one of those main places that you can't ignore when you wanna have healing. So you did mention inflammation and I think it'd be great if we could just segue real quick and just share with the listeners. What do you see as the biggest drivers of inflammation 'cause as you said, we know inflammation is driving chronic illness.

Laura Frontiero, FNP-BC
Yeah, and underneath chronic illness is inflammation and there's this cascade of steps that occur for mitochondrial damage as well. So how we damage anything in our body, how we damage one thing is how we damage everything. So there's some things we have control over and things we don't have control over. We don't have control that every year, we're a year older. So aging is something that, we can't control time and we can't control a lot of our genetic inheritance, genetic predisposition. I mean, once we get it, there's some things we can do to improve the situation but your overall genetic gift from your parents my gift is different than yours, right Sharon? My genetic gift. But the things we do have control over that do drive inflammation are how we live our lives in terms of sedentary versus active and are we moving our bodies. The foods that we are eating have a huge impact and whether we're in a constant hyperglycemic state or whether we're more efficient fat burners, because there's two different sources of energy that the mitochondria are using.

And if we're constantly burning sugar and hyperglycemic, we're gonna be less efficient at making energy and we're gonna be more inflamed as well so diet is really important. We're thinking sugar, processed food, non-organic food that contains pesticides. Things that we have control over include nutrient deficiencies. Are we eating in a way that gives us a wide variety of nutrients from food. Chronic stress, there's one that is just so inflaming in the body. When we think of toxins in the body, stress is a toxin. It absolutely is. Sleep deprivation and when we think of other toxins in the body infections, so we think about viral infections, bacterial infections. So bacterial, commonly being in the gut and urinary tract, viral infections, Epstein-Barr, hepatitis, herpes now COVID all these viruses that we're exposed to. Fungal infections, candida, and then underlying silent parasites that we don't even know are there causing a problem. And then the big, huge

one, environmental toxins. So we're talking everything from our cleaning products to our body products and beauty products, hygiene products, burning toxic candles and air fresheners, the volatile organic compounds that are off gassing from our furniture, our car interiors, the paint on our walls, the carpeting, the flooring, and people say, I don't have carpet, I have wood floors that are glued down with chemicals. I know, we installed our wood floors. It's a lot of toxic glue underneath there. And so radiation, electromagnetic fields, heavy metals, industrial toxins, mold and microtoxins, so these are all drivers of inflammation. I know that sounds kind of overwhelming. Like how do we survive with all of this coming at us?

Dr. Sharon Stills
That's a very large, comprehensive and accurate list and I think it can be overwhelming, but I think to flip it, if you're someone who's listening and you're suffering and you've been told, this is aging, there's nothing we can do. It's all in your head. Look at all the things. To me, it's always when a patient comes to me, it's like, oh my goodness, where do we start? Like, don't worry. We're gonna get you better because I have a laundry list that Laura just very profoundly orated to us all. And so it's like, where do we start? Is it this, is it that? There's so many reasons why you may not be feeling good and so it can be overwhelming, but it can also give you hope that perhaps the reason you're not feeling good, just hasn't been explored or questioned or uncovered yet and that we're all in this together. We all live on planet earth, we all live in beautiful mama earth who happens to be a little toxic right now, she's having some issues and so we do the best we can.

As you said, we control the things that we can, we have control over what we do or don't put in our mouths. The house thing, you do the best you can, you clean it up the best you can, but maybe it's not really realistic that you're gonna bulldoze your house and start from scratch. So we take it piece by piece. Maybe you get an organic mattress, maybe you get a good air purifier. Maybe you get more spider plants and Rhododendron and the real good house plants that clean the air. And so I always say, take a breath, take a breath because I'm in the middle of teaching a detoxification class right now. Even when I teach it, it's like, oh my God, this is so overwhelming. And then I was interviewing a woman on my podcast the other day about EMF, which you mentioned and how toxic our cell phones are. And she mentioned talking in the car and how that just exacerbates because the microwaves from the phone are just bouncing back and forth from the roof of your car and the doors of your car and how toxic it is. And I was like, oh my God. So

now that's my new thing, I'm doing my best 'cause usually I get in the car and I'm like, oh, this is a great time to catch up on my phone calls and chat. And now I'm like, can't even do that because it's frying me.

Laura Frontiero, FNP-BC
Sharon, I think about it all the time. We just bought a new car. I have a 2022 car and it's like being in an EMF trap. It's literally connected to satellites up there that are telling me where I'm at at all times on OnStar and my phone and I'm thinking, I don't think it's a very safe place for me to be in my car.

Dr. Sharon Stills
I'll just walk. I'll bike there and then I'll breathe in the pollution from all the car exhaust, as I'm biking down the road. Sometimes, it's scary and sometimes you just gotta laugh and say, we're here, we're on this toxic planet and we're just gonna do the best we can do and make the best choices we can.

Laura Frontiero, FNP-BC
Totally. So there's some simple stuff we can do, right?

Dr. Sharon Stills
Yeah. Tell us, let's shift it, now we have hope. What can we do? Tell us.

Laura Frontiero, FNP-BC
So as you're going through premenopause, perimenopause, menopause and you wanna go through this in a way that is most comfortable for you and so that your ovaries can produce the maximum amount of estrogen that they still can, even if they are menopausal. And so first starts with nutrition and this is really simple. I know you have tons of people coming on here talking about nutrition. It has to be a central part of every talk, but clean protein and healthy fats and greens and lots of different variety of food and eliminating the refined, processed, factory made foods with artificial ingredients. It's a really important, critical first step of any kind of process to heal mitochondria, to decrease inflammation, to heal gut, to maximize hormone production, all of it so important. And then what we do with those foods also matters. So for example, from a mitochondria perspective, intermittent fasting is wonderful and it doesn't have to be all day long or even 18 hours but just start by closing your kitchen at six o'clock at night, the

kitchen is closed, closed sign on the kitchen. You don't go back in there and you don't eat again until morning when you wake up, you can easily make it 12 hours from 6:00 PM to 6:00 AM. You really can, if you set yourself up with a dinner that gives you some sustaining, healthy fats and enough protein, and you don't have a carb overload and you're gonna last and go to bed before you get starving again. The worst thing we can do is still be awake at midnight, going, oh, I'm starting to feel hungry so go to sleep at a decent time. So something else you can do is from a, not forever, but from a kickstart everything and get it going is you can consider keto diet. So that high fat, low carb plan uses ketones instead of glucose for energy. I touched on that earlier when we were talking burning fat for energy is far more efficient than burning carbs and glucose for energy and we create less metabolic waste. It's like burning a high octane fuel in your car instead of a regular unleaded, which results in better performance and better gas mileage, and fewer exhaust and emissions.

And our body is the same way. So try some fat burning for a little bit, to kickstart everything, to make yourself more metabolically flexible so that you can burn those fats efficiently. And then simple things. We talked about moving our body and getting regular exercise and getting good sleep and getting out in the sunlight and using the natural rhythms of the earth and the circadian rhythm and when you wake up in the morning, get outside and have that sunlight, or even if you can't get outside, stand at a window. There's been times in the winter where I've just stood at my window and looked out at the sun and just stared my eyeballs at the sky and the sun for five or 10 minutes before I started my day. It can be that, it's better to get outside and connect with the earth, but if that's all you can do do that.

And then the other piece that people don't talk about a lot is at the end of the day, when the sun is going down, get in relationship with that light and that time of day as well, because that helps to start shift, shifting our cortisol levels and bringing everything down your body inherently knows, oh, it's the end of the day. It's time to start down shifting and thinking about going to sleep in a few hours. And that's a really nice time of day to connect with your family and to connect with yourself and reflect on the day and talk about stress reduction. That's a wonderful time of day. The evening when the sun's going down.

Dr. Sharon Stills
One of the reasons I love living in Arizona, because sunset is an event here. We have some of the most beautiful sunsets in the world. I know they say the sunset in Oia on Santorini is the most beautiful sunset, but I've seen it and I would fight that our sunsets are prettier. And so in Arizona, it's an event. It's something we discuss, did you see the sunset? So I love that that's part of built in around here and it's not always built in when I grew up in suburbia on long island. It wasn't until I moved to the ocean where it became an event again but if you live where there's a lot of trees and you might not have a good view of it making a mental note like oh yeah, Laura said, I should get out there and kind of, say goodbye to the day. And in the native American tradition, I always do. It's a meditative practice but as the sun goes down, I energetically cast and give to the sunset what no longer serves me and let it fade away as the sun and the light fades away in the day.

And then also wanna bring back up what you said you kind of said it quickly, but I think it was an important part about rotating your food because we tend to, as creatures, as human creatures, we tend to find a breakfast even if it's a, I'm gonna have some quinoa and two eggs and blueberries, and that's gonna be my breakfast and I like it and it's healthy and I'm gonna do that every day for the rest of my life. And everybody gets very sensitive when we eat the same things, not to mention that you're getting the same phytonutrients from the blueberries and you can get different things from grapefruit or apples or watermelon or peaches. And so it's really important to rotate our foods. And that really came up to me when I started doing food sensitivity testing and they would give you rotation diets for the patients to follow.

And it was like, oh, Monday is gonna be a chicken and salmon day, let's just say, and then all you eat that day is chicken and salmon and then the next day you eat beef and Turkey and it was so opposite to what I always thought. Like I always thought, oh, if I ate chicken for lunch, I should have beef for dinner but actually our immune system likes to have the same genus of foods and then take a break from it. So I'm glad you brought that up because that's not something I think that's talked about enough and it's really important. We talk about eating healthy and choices, but we have to, and it's a little more labor intensive, right? Because you have to go to the store more often or your veggies go bad and your fruit goes bad.

Laura Frontiero, FNP-BC
So on that note, Sharon, this is where you can use some of the modern conveniences to our advantage. So we're talking a lot about how some of this modern stuff is hurting us and you can actually have food delivered and you don't have to go to the store. It's brilliant.

Dr. Sharon Stills
Bring me into the modern world. I'm still living in the stone age.

Laura Frontiero, FNP-BC
Oh my gosh, so you totally can Instacart on an app that you can put on your phone or computer and you can have your shopping lists and you can rotate through food and have it delivered because if you're not going to do it because you don't wanna go to the store as often or think about it, you gotta make it easy.

Dr. Sharon Stills
My daughter-in-law has been telling me about this Instacart thing and how much she loves it and I'm like, huh? So now I'm hearing it again from you. All right, I'm gonna.

Laura Frontiero, FNP-BC
Sharon and I were a month ago, we were in Florida together at a conference. And do you know that I had Instacart deliver food to the hotel so that I had my purified water and I had my goat cheese 'cause for breakfast, I didn't wanna eat the hotel food so I got goat cheese and I got nitrate free Turkey and I had my fruit and I had some organic hummus and vegetables, I had that all delivered.

Dr. Sharon Stills
So I don't have to Uber from the hotel and find the nearest whole foods?

Laura Frontiero, FNP-BC
No, I had it all shipped to me from whole foods.

Dr. Sharon Stills
I just learned something today. I'll be downloading Instacart when we're done here and learning how to use it 'cause I tend to sometimes be afraid of technology. It's like, I'm in

my own little bubble, but I love that you're bringing that up because there's always the yin and the yang of everything and we are talking about technology and the harmful effects but there are, as you were saying some really useful effects there's good and bad within everything.

Laura Frontiero, FNP-BC
Yeah.

Dr. Sharon Stills
Just on the useful things, Instacart everyone.

Laura Frontiero, FNP-BC
There you go. We could talk for a long time about all the good things you can do to support your mitochondria and your health. We've touched on some of the big, basic ones there's devices that you can use as well like red light therapy, for example, infrared and red light therapy. I'm wearing a device right now. I have a PEMF device connected to my body right now as we talk and this is very healing, cellular healing and mitochondria stimulating and reduces inflammation and helps with pain and all kinds of stuff. So I mean, there's so many things that you can do. Just pick a couple of them and just bring them into your routine little by little one by one. You don't have to be doing everything all at once right Sharon? That's where it gets overwhelming is when people try to, I have all these things I have to do that you do nothing, it's paralyzing.

Dr. Sharon Stills
Exactly and I've got my Weber laser watch, which stimulates my mitochondria, so exactly you don't have to wear every toy you can find, find a toy or find something and yeah, it's like if you start to get stress, it's funny because I teach mindfulness based stress reduction. And it's a joke among the teachers that the stress reduction, the eight week stress reduction class can be very stressful and we're trying to reduce your stress, but here it can be stressful if you allow it to stress you out because you have homework and all these things. And so it's definitely who you are and how you're doing it. So pick one, learn Instacart. My one from this talk is I'm picking Instacart. I'm gonna learn how to order food to my house so I can not have to be running to the store so frequently and I'm gonna embrace that technology. But maybe your one is waking up with the sun or watching the sunset or I love and I'm a big believer in that too the kitchen is closed, lights

out. If you have to padlock the fridge, padlock the fridge like it's done, kitchen is closed. Mom is off duty, you're off duty. And just what you said, that if you stop eating then and you get to bed at a reasonable time, it's really easy to get that 12 hour fast in and it gives your body so much good and you don't even really have to be hungry or struggling through it.

Laura Frontiero, FNP-BC
Make it easy, but it takes some commitment to commit to slowing down at the end of the day and not having all that productive time at 10 o'clock at night, 'cause that's not serving any of us. I could work all day long, all night and not shut down. I'm wired where I could just sit in this office and work nonstop. I literally have to force myself. So it takes commitment to do that. And what are you committed to? Are you committed to that never ending workload or are you committed to spending time with your family, enjoying life, being joyful, creating a legacy, nobody at the end of their life ever said, gosh, I wish I would've worked more.

Dr. Sharon Stills
Exactly.

Laura Frontiero, FNP-BC
Don't they say they wish they would've done.

Dr. Sharon Stills
Yeah, I have patients do eulogy exercises, which sounds a little morbid, but it's really to take a look at and then reverse engineer how do you wanna be eulogized at the end of your life and are you living into that. If you wanna be remembered for philanthropic work or volunteering or baking the best paleo cookies or being the neighborhood mom, whatever it is or your book you wrote are you doing the things so that when you do get to the end of your life, that will be your legacy. And often, we don't think about it. So we have to stop and think about it and start to create it in our own lives and I think what you were just saying is so important. And I often say this to patients, one of the most important healing tools you'll use is your calendar. And really looking at it like Laura was saying, is there so much you're doing at night, you're stopping and really looking at and prioritizing. And as we age and if you've been raising children and as they get older, we get some more of our time back. And so how are you gonna utilize that time and are you

gonna plan your life around the things that are important, the sunset, an exercise, routine, sleep. And so I always, my schedule gets planned around my yoga practice. It's like hot yoga and then everything else can fall into place.

Laura Frontiero, FNP-BC
Yep, you gotta get that in, you gotta have that priority for sure.

Dr. Sharon Stills
I love that.

Laura Frontiero, FNP-BC
I know you have happy, healthy mitochondria, Sharon.

Dr. Sharon Stills
But it's something you know you have to work for it and it's something you have to constantly be. We have to be committed to making healthy choices otherwise our mitochondria will get pissed and they will revolt.

Laura Frontiero, FNP-BC
And then our hormones will be off balance and menopause will be a nightmare and digestion's gonna be a problem and you're gonna feel bloated and you're gonna gain weight and you're gonna be cranky and skin's not gonna look good. All of it.

Dr. Sharon Stills
Exactly. Well, thank you for bringing mitochondrial awareness to the Mastering the Meno Transition Summit, because it's a piece that we couldn't leave out because it is so important. And so I just adore you and this has just been fantastic. And if the ladies wanna learn a little more, is there a free gift they'll have access to, to learn a little more from you?

Laura Frontiero, FNP-BC
Yes, you know how I feel gut health is central to everything. So what I'm gonna give to everybody here is gut health kickstart, which is all the foundational steps you need to know to support gut health, mitochondria health, healthy hormone health, healthy aging, it's all foundational and so we'll make sure that you have access to that.

Dr. Sharon Stills
Well, thank you, thank you, thank you. And thank you for being here and for the work you do, and for really taking a stand and putting mitochondria on the map where it needs to be. So I just appreciate you so much and thank you everyone for being here and listening. We have some really good tips to take home that you can start right now when we're done listening here. As for me, I'm gonna go download Instacart. So I'll be back soon with another session for you another interview, and maybe I'll tell you how my Instacart went. Okay, be well, we'll see you soon.