Integrative Approach to Cardiometabolic Disorders
Guest: Dr. Joseph Lamb

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Dr. Mark Menolascino: Welcome back to the Women's Heart Health Summit. Thank you for joining us. This is your opportunity to hear from the world's experts in women's health and specifically in women's heart health. Today we're joined by one of my good friends and someone who I see as one of the experts in the field of not just women's health but integrative functional medicine and heart health, Dr. Joseph Lamb.

Dr. Joseph Lamb: Thank you for that introduction.

Dr. Mark Menolascino: So I've known Joe for a long time. He's someone that I turn to as an expert opinion. And I think we're all fortunate that we have someone who teaches doctors and is academic, yet clinical and does a little bit of both. Let me tell you a little bit about Dr. Lamb.

Dr. Joseph Lamb is dual board certified in internal medicine and holistic and integrative medicine. He's been practicing since 1989 and is a founding diplomat of the American Board of Holistic Medicine and Integrative Medicine. In 2013, he achieved a certification as an Institute for Functional Medicine practitioner, one of the first people to be in that class. He's a renown teacher, speaker, international lecturer, and author on integrative approaches for cardiometabolic disorders, diabetes, obesity, osteoporosis, women's health, autoimmune disorders, chronic fatigue, fibromyalgia, and really the goal of achieving optimal wellness.

Dr. Lamb utilizes lifestyle modification, herbal and nutritional therapies, as well as addressing cognitive therapy to address chronic disorders to promote healthy aging. Dr. Lamb's motto is health is so much more than the simple absence of disease. In our journey together through illness and disease to optimal wellness, lifestyle modification can be the most potent opportunity to achieve your goals.

So again, thank you, Joe, for joining us. I'm honored to have you here. You're one of the experts that I love listening to lectures and that I turn to for an expert opinion.

Dr. Joseph Lamb: Thank you, Mark. It's great to be here today. And the topic is fascinating because as kind of a culture, as the lay public, and even as the medical professionals that people see every day, we don't think about heart disease affecting women. But it remains the number one killer in women.

Dr. Mark Menolascino: That's so right, Joe. I think a lot of people viewing and a lot of the doctors, they don't realize how different it is. Can you give us a bird's eye view of how unique women's heart health is, in your experience?

Dr. Joseph Lamb: Well I think it's unique in that we don't really look for it. Osler, way back when, talked about when you hear hoofbeats, you think horses, not zebras. And we have this tendency to think that women's heart disease would be a zebra because it happens ten years later. But that's not really the case. I mean it's not really what's going on. It just happens ten years later. And with longer life spans now we've got to be looking for that. And none of us are surprised when a 50-year-old male has a heart attack at the gym. But we're surprised when a 50-year-old woman does.

Dr. Mark Menolascino: Absolutely.

Dr. Joseph Lamb: But now 60-year-old women are making it to the gym for the first time. And they're in that kind of setting. And we just have to think about it being common. And the presentations are similar. One of the other real challenges is how do you diagnose it in women because the typical stress test with the EKG doesn't do as good of a job in women because they have more of what we call non-specific T wave changes and ST segment changes. So you can get kind of a non-diagnostic test.

So it becomes, a, we have to think about it more. We have to think that's going to be, actually, a horse when we hear the hoofbeats. And once we start considering that, we've got to start educating women about symptoms of heart

disease and what some of those markers are. And then secondarily we, just as professionals, have to look for it.

Dr. Mark Menolascino: So this brings up a good point of how what we were taught in medical school may not be everything. And so we have to uniquely personalize it.

So Joe, if a 55-year-old woman who's just entering menopause comes to visit you and she's worried about her heart, how do you evaluate that woman? What are some of the things that you might do differently than her primary care doctor did?

Dr. Joseph Lamb: Well one of the first things always to do is take a really good history. That's one of the things we do in functional medicine. We think that the history will give us a lot of answers. And if you ask about lifestyle, if you ask about how they do with exercise, if you ask are there limitations when they take out the garbage, any of those sorts of things, when you do that, you suddenly get the answers that point you down the pathway. So that's the first place.

And then the second place is to start thinking about do I need to read this EKG when I'm looking at the 12-lead pattern in tracing in front of me. Do I need to read it with a more sensitive sort of idea? If it's someone who's an athlete, maybe you'll write some of those changes off to repolarization that you see with exercise on the EKG, kind of a training effect. Your heart looks better on the EKG. But it can also look almost like an injury effect. So you pay attention. You have a greater sensitivity.

And you say well, could that be ischemia on the EKG. And then you start thinking about doing various tests. And the traditional ones that always have been done are things like echocardiograms. But from kind of an imaging perspective, we've really moved forward from that. And the three big categories would be looking at the thickness of the artery wall in the neck. We call this CIMT. So it's Carotid Intima-Media Thickness. Then another big one's doing a rapid CT scan of the chest, which is looking for a calcium score, which looks for calcium burden.

And then the third, which is actually one of my favorites and is not done very often, is some sort of assessment of peripheral artery tone, so that earliest of endothelial dysfunction because you'll see changes in the ability of the vessel wall to relax under exercise condition. You'll see that change earlier than you'll see any sort of thickening of the wall or any sort of laying down of plaque or

calcification of that plaque. And a great device for that is the endopath, because it's easy. You can put it on someone's finger. It doesn't need an ultrasound technician to do it. You don't end up getting reading glasses like I have because you stared at the screens trying to measure bloviatevasodilatation ultrasound. It's just a great test.

And it's easy to do, covered by insurance. So that's a great test for women to ask for. And it helps differentiate early on because when you are talking that 50 to 55-year-old woman, she's just at that transition where she's losing her estrogen. And one of the things we don't think about estrogen much on is that it's an anti-inflammatory for women.

Dr. Mark Menolascino: Yes, absolutely.

Dr. Joseph Lamb: And you lose that when you start getting the inflammation. And I'm sure we'll come back to talking about cholesterol. But it's not all about cholesterol. It's about inflammation too.

Dr. Mark Menolascino: Well we were taught in medical school that it is all about cholesterol. And it's all about the cardiac stress test. But we both have patients that have normal cholesterol, have passed a stress test, and actually still have heart attacks. So we need to go beyond. I think, Joe, you were the first doctor that shared this in a lecture. You asked the audience, "What's the largest organ in the body?"

And we were taught it was the skin. And that's what all the doctors' answered. And you told them, "No, it's the endothelial lining, or the vessel inside the lining," which in medical school I was taught it was inert; it was a rubber hose. But in your view it's really a living organism, a living organ, part of the whole story. Can you share that with us?

Dr. Joseph Lamb: Yeah, absolutely, because if you think about it, we have all heard don't eat right before you go swimming, those sorts of things. We've heard don't eat before you go for a run. You're not going to get a very good exercise performance because you're shunting blood to the GI tract if you've eaten.

And you may not have enough to go elsewhere. And when we're under stress, our blood vessels dilate in order to increase the blood flow to those areas where we need it. Actually I kind of stress test. Some of us who've done it, or if you just monitor your blood pressure while exercising, a lot of us are surprised when the bottom number, the diastolic, actually drops. And the

reason it does that is because that distance between the top number and the bottom number is reflective of what's called the perfusion pressure, or the pulse pressure.

And when we start out with an ideal blood pressure, 110 over 70, as we exercise, yes, we want the top number to go up, but we want the bottom number to go down so that pulse pressure widens. It's not a good response when that bottom number actually increases or stays the same. And the blood vessel, having the responsiveness in the muscle to stay tight enough so that you get a good peak flow, so you get profusion of the muscle, but relaxing so it can actually fill, is very, very important.

Dr. Mark Menolascino: Well what you're really talking about, I call it the stiff pipe syndrome. And these are people, when they do their stress test, their blood pressure skyrockets. Or what I saw when I was working in the ER was people that would come in, and they went out to dinner and maybe had a high fat meal or had a steak, and their body was not able to deal with that inflammatory meal, and their blood vessels weren't able to dilate. And so they got chest pain because it starved the heart of oxygen because all the blood was going to the gut, as you mentioned.

Joe, you mentioned two very important tests which we've talked about in some of the other talks. One was the CIMT, the Coratid Intima-Media Thickness. And we showed a picture of that in one of our other talks. That's an ultrasound non radiation way for a woman to see if she's at risk that goes beyond a stress test, that looks right at the blood vessel, looks at that endothelial lining. The other is the stress echocardiogram or stress with an ultrasound. I like to tell women don't be satisfied with just an EKG or heart tracing, not with just a stress test. Add something else to it. And that stress ultrasound seems to be a great way to go.

In our world, Joe, 60 is the new 50.

Joseph Lamb: Oh, absolutely.

Dr. Mark Menolascino: Yeah, it's not anti aging to live to 120. It's, in Jackson Hole, skiing with your grandkids when you're 85. So it's this optimal vitality. What are some of the pearls that you share with your clients about 60 being the new 50, 70 being the new 60? What are some of the easy things they can do to cut out some of their cardiac risk?

Dr. Joseph Lamb: Well, before we get too far away from cutting out the risk, the final thing I would say about diagnosis is, just going back to an advanced lipid profile, getting more than the standard set of tests done, because this is one of the ones that's a little bit confounding, particularly for women, because you look at a standard lipid panel.

And you've got, let's say, a slightly elevated total cholesterol. We know it should be under 200, maybe ideally under 150. And you're looking at it. And let's say you're looking at that 55, 60 year old woman, and it's coming in about 210, 230. And then we sit there, and we look at the HDL. And let's say they have a pretty good HDL. It should ideally be above 50 in women. And let's say that they're in the 75 ballpark.

Dr. Mark Menolascino: And that's the good HDL, the happy cholesterol, the good HDL.

Dr. Joseph Lamb: Right, exactly. And you look at that and you say hey, that's a good proportion there to have. It's less than three to one, so it's kind of ideal. But let's say blood sugar metabolism's pretty well controlled. You have a great triglyceride. Let's call it 100. So you've got a triglyceride of 100, which gives you a VLDL cholesterol, doing the math quickly here, of 20. So you sit there and you go 230 minus 75 minus 20, and it suddenly takes you down to 135 for your LDL cholesterol.

And ideally, if you have two risk factors, you'd like to be under 130. And to be optimal you'd like to be under 100 for that LDL cholesterol. So as a practitioner you're looking, and maybe this woman doesn't have a lot of risk factors. Maybe she's fairly fit. Maybe she's relatively thin. She hasn't smoked, doesn't have a really bad family history, probably doesn't exercise a whole lot, let's say, for the point of our story. And yet maybe her blood pressure's a little higher than we would like. It's not the optimal 110 over 70. And she's not male, so we've taken away that risk factor. But she's also losing her estrogen.

So you look at her. A lot of physicians would go, "You have a great HDL to protect it." But what we're learning is that not all HDL works as ideally as we would like it to. And with that panel, you can't necessarily say to that woman she's not without a lot of risk. And I think this is where a lot of women, and also men, get lost. They fall into that little crack of not really being noticed. Yeah, you're a little overweight. Yeah, your cholesterol numbers aren't very good. But if you dug deeper into those numbers, you'd suddenly go yeah, this isn't so good.

Dr. Mark Menolascino: And that's such a great point, Joe, because so many of our viewers, all they have is a basic cholesterol test to go from. And so I encourage all of them to rewind this section and listen to what you just said and map out their numbers, because it's something that you can do from a simple health care test or one of your very basic cholesterol tests.

I like this advanced testing. I know you do as well. We do some of these advanced inflammatory markers. I'm a data person. I think our heart evaluation for women is 27 different biomarkers now. Not any one of them tells a whole story, but together they tell you a story of the symphony of health for her. What do you think of all the new markers? Are there some that you're really excited about, particularly for women, Joe?

Dr. Joseph Lamb: Yeah, so the markers, I would say just three to highlight here because really, if you go in and you find a practitioner who's open to discussing the advanced markers, they're going to be right there with you in terms of going into the details, but getting an LDL particle number. All these numbers that I just talked about were milligrams per deciliter. They were weight per volume of blood.

That's the concentration. If we were standing with that patient outside a room and we said to them, "There are 500 pounds of cholesterol sitting in that room," well we'd be not very clear about how hard it would be to clean it up until we opened the door. If we opened the door and there's a 500 pound block of cholesterol sitting there, really look at the patient and look at ourselves and go okay, we're leaving it. But if it's 10 to 15 pound blocks, we can pick it up, carry it out, take it out front, and someone could come by and pick it up and take it away.

So if we were trying to clean that up, we'd like to see 10 to 15 pound blocks. If it's little baby size pieces, or marble sizes pieces, we're going to be scooping up a handful at a time, carrying it out front, putting it down in there, and they'd be going everywhere. It's these little baby size pieces for LDL that are the greatest trouble for us. And they get stuck everywhere. They'd be left behind under the furniture, under something. They'd be somewhere, just like in her blood vessel.

Dr. Mark Menolascino: Great analogy, Joe. That's a great analogy.

Dr. Joseph Lamb: Thank you. In our blood vessels there's no 500-pound block. But there are the 10- to 15-pound blocks and the little blocks. So when

you get a particle number, it gives you an idea about size. And ideally your particle number would be under 1000.

The other piece that's really important, and this goes back to that whole piece that we were talking about inflammation and not just about cholesterol, it's what happens to that little particle, because in an inflammatory state, we can have oxidative stress. We cannot be taking enough antioxidants. We don't eat enough phytonutrients. So we get kind of an elevated oxidative potential.

And we can actually oxidize our LDL. And we can measure that. It's a little bit, going back to the analogy, imagine if we left some of the little babies sitting outside in the sun and the rain. After a little while they would rust. And the scientific name for that process is oxidation.

But if it were a fat molecule that we left in that condition, like if you left a bottle of olive oil on the kitchen counter open and out in the sunlight, it would go rancid. Rancid is also oxidation. And so we can actually measure the fats that go rancid in our body, which are some of the most important markers that there are.

And that would be the oxidized LDL. So we can measure that. At the moment we can measure things like for inflammation the markers aren't super sensitive. We talk about how important it is, and we talk about high sensitivity, c-reactive protein, but it can get a little bit… I probably shouldn't say that they're not sensitive. I should probably say they're not really specific, because if I go into the doctor on a Tuesday to have my hsCRP measured and I'm about to come down with a virus, common cold, on Wednesday, my body has already bumped that CRP pretty high.

So it can be a little bit deceptive. So that's a good marker. The oxidized LDL's a good marker. The LDL particle number's a good marker. And specifically try to figure out at the moment whether that HDL really works or not.

Myeloperoxidase is a good number. A lot of labs are working on new assays for whether or not HDL works. But they can't do it at the moment.

Dr. Mark Menolascino: You bring up a great point about lab testing in that you've got to be careful with it. So if someone has a cold and they look at all these advanced inflammatory tests, that can be helpful to see if you're inflamed or the oxidative state, like you talk about, which is like an apple when you cut it; it turns brown after ten minutes. That's kind of what I see going on inside your artery. So some people think you should do all these

tests on the front end then fix what's wrong. I kind of like the idea of getting the biotrain or getting the body and getting things cleaned up and healthy and testing at a very smart time, when you've done a little groundwork to get some of the inflammation down. Because you're so right, I think you can be led down the wrong path into these inflammatory markers. And when someone's coming out of the cold or when they're having digestive dysfunction or other inflammation sources, put out those fires first, then go look. Does that make sense to you?

Dr. Joseph Lamb: It does. And one of the things about any lab test is how much of variability there is in it. We talk about the biological variability, which means how much it can change day to day just because of what goes on in our bodies. And then we talk about the measurement variability, how much can happen because the lab does the assay a little bit different today than they did yesterday.

And a perfect example of that is if you're using that equation that I used in my head to calculate LDL cholesterol earlier, there's a 15 percent day to day variation in that. So if you're looking at someone with a cholesterol of 150, which is well above that 130 number, it could be 128 tomorrow, or it could be as high as 172 tomorrow if it was 150 today. So you have to follow trends. And you know this. We should never let one lab test change our minds about what happens with a patient.

And then the piece that you brought up is very, very valuable, particularly if someone has some limited resources. I've always practiced in the insurance model. So I've taken people who come in, and they need their insurance company to cover this lab testing. And it may only be covered once. Or if it's something that their insurance company's not going to cover, maybe they only want to pay for it once.

And this is the really valid point. If someone comes in hypertensive with an abnormal lipid panel, a high blood sugar, and they're overweight, and we already know all the things we're going to do for them, then that's probably not the best time for an advanced lipid panel because we already know their cardiovascular risk is high.

But if we're coming back at a point where six months down the road maybe we've gotten close to ideal weight, maybe blood pressure's controlled, maybe exercise is going pretty well, and you think well, maybe we've done just about as much as we can with lifestyle, that's a really good time to address those

numbers and look a little further. So you get those numbers, and you say, "Hey, we still don't have that oxidized LDL down. What are we doing to do?"

Another setting in which I find this happens, and I think this happens to both male and female athletes, is the overtraining effect. I see right there in front the mountains, and I'm reminded of someone who I just recently saw in the office who was doing one of the ultra marathons, the 100 miles marathons in 24 hours as a team.

And they're running pretty much continuously. During the training period leading up to that we measured their numbers. And you would've thought here's a fit gentleman, good condition, etcetera. Horrible cholesterol numbers, horrible markers of oxidative stress, and actually at a lot of cardiac risk because of that. Because it goes back to what we were saying earlier about that endothelium, what you brought up. It's a very biologically active tissue that's responsive to all sorts of messages.

And for it to relax we have to make nitric oxide. It's been demonstrated, for example, if you eat a high fat meal and a high sugar meal - and they actually used a popular burger chain's biggest hamburger, French fries, and a Coke, or a soft drink - and they showed a reduction in nitric oxide production coupled with the blood vessels staying tighter, exactly what you're talking about. So we can be surprised. And there is the right time to do the testing. For me testing's done when I need to make a decision about what I want to do.

Dr. Mark Menolascino: Yeah, the study you're talking about I found fascinating. They put a pressure monitor in the artery of the arm and fed him that fast food burger meal. And it spasmed the artery, whereas a lowfat, less processed meal didn't, very, very interesting how you really are what you eat.

Joe, I know I get asked this every day, and I'm sure you do. And I'm going to put you on the spot a little bit if I can. Joe, what diet should I eat? You have so many people talking about ketogenic, intermittent fasting, the fasting longevity, all of these different types of diets. How do you approach nutrition with your individuals? Do you do any testing for them, or do you have kind of a set starter point? What's a way that you help or that our viewers can kind of make a couple of interesting, safe, positive direction food choices?

Dr. Joseph Lamb: Absolutely. So the least effective food plan is the one you don't follow. So that's a big part of where I start. I have a discussion with someone about how we're going from here to there. Will you do this? I think that's a really important piece. And about 2012 we ran a 66 week long weight

loss study, clinical study. And during the first 13 weeks, which was the rapid weight loss phase, we had about a 20 percent drop out rate, which is actually not bad for that sort of study. But the people who dropped out were the ones who really weren't prepared for the work it was going to take. So I really think that that's a crucial first point. And then the second point to think about food plans is whether they're a maintenance food plan or whether they're a therapeutic food plan.

Dr. Mark Menolascino: I love that idea, Joe. That's great. I love that.

Dr. Joseph Lamb: Thank you. It's certainly not original to me, but it's the way we've got to think about it. It may be appropriate to start a food plan for eight weeks or six months to reach a certain health goal and then think about where we're going to transition long term. And then the other part that I just think about is you've got to really know something about your patient before you pick a food plan.

Some of these high protein, high phytonutrient diets - and I actually love that sort of food plan - it's about 40 percent protein, about 40 percent fat, about 20 percent carbs, mostly coming from non starchy vegetables as higher caloric loads. It's going to have a lot of protein. If you're at 1000 calories a day on that food plan, 40 percent of the calories, 400 calories divided by four calories per gram of protein, you're going to end up getting 100 grams of protein, which is not that big of a load.

But if you're dealing with someone who has a higher caloric demand, maybe they are significantly overweight, but maybe they're also exercising a good bit, and you want to be closer to 2000 calories. So that's only 200 grams of protein a day. And we're suddenly getting into the range where it's not so great for kidneys. So if someone has a slightly high creatinine, that needs to be taken into account.

So similarly, back to what we talked about in terms of endothelial dysfunction, on some of these keto food plans, when people are getting a lot of calories in because they're exercising, they may be getting enough fat, particularly if they're getting the wrong sorts of fats, the trans fats or the saturated fats, they could be actually worsening their endothelial function while they're making changes.

And we're beginning to see markers, like certain genes, like ApoB, that play a role in telling us hey, maybe you're not the one for the keto food plan because you're not going to do as well in terms of your lipids. So those are all things

that I consider along the way. But just as starting point, I think there are a couple of basic rules that anyone who's listening today can take away.

Dr. Mark Menolascino: Great.

Dr. Joseph Lamb: One is that colorful foods on your plate are really important, the non-starchy vegetables delivering a variety of colors or delivering what we call phytonutrients. And it's not on the label today.

We don't have labeled statements saying the information molecule in this vegetable helps you metabolize your estrogen or helps you metabolize foreign toxins that come into you. We don't have those sorts of statements. Or we don't have a statement that says the vitamin D that's present here will help you do x. Or we don't have the statement that will help you reduce your oxidized LDL.

We did a multi vitamin study with a phytonutrient enhanced multiple vitamin. And we demonstrated, for example, about a 15 percent reduction in oxidized LDL for people not eating a very good diet by adding just a multiple vitamin.

Dr. Mark Menolascino: So, Joe, you're talking about these phytonutrients and the colors. Is there a rule that you would like, or is there a general suggestion about how many colors to get? And what are some great sources of those colors? And do you need to go organic?

Dr. Joseph Lamb: So I would try, as a basic rule, to get somewhere in the neighborhood of about five to nine servings of fruits and vegetables a day. Serving size should probably be considered a half of cup of something that you've finely chopped and a full cup of something that's bigger. Like broccoli florets would be a full cup. Chopped up red peppers would be a half cup. I would think about getting some reds, some yellows, some greens, a little of everything.

And the biggest category to get your color from should be the non starchy vegetables. And what I mean by that is starchy vegetables would be including potatoes or beets or some of the squashes or corn. And frankly, I would never include corn in my diet at all because it's a high glycemic load starchy vegetable without a lot of nutrients. And it provides a lot of omega-6 fats.

Dr. Mark Menolascino: Joe, how do you talk about glycemic load and glycemic index to people? Do you have a good, easy way for people to understand that?

Dr. Joseph Lamb: Basically I don't. I mean what I basically say to people is I give the example of if you had the same amount of sugar from a carrot as you do from white bread, that you would get the same response. But if you ate a slice of white bread to get that response, you'd need to eat a whole bunch of carrots to get the same response.

And that's the glycemic load, figuring out how much sugar there is, so the type of sugar from carrots versus type of carbs from white bread. They're both high glycemic index, but because there's so little compared to how much fiber's present, carrots actually end up being a moderate glycemic load. Watermelon falls into the same category because it's so full of water and fibrous material as well, you fall into this category of it being a low glycemic load.

Dr. Mark Menolascino: And, Joe, is that the difference between eating two oranges and having a glass of orange juice as well?

Dr. Joseph Lamb: Exactly. Because when you have that glass of orange juice, you've left all the pulp behind, or most of the pulp behind. That's just why juices typically aren't part of a heart healthy food plan.

Dr. Mark Menolascino: Someone the other day was telling me how they think of juice versus actually fruit that a glass of juice gets into your stomach and then stampedes its way to the liver as basically sugar water. Whereas when you eat two oranges, the fiber in the sugar of the orange slows down that stamped to the liver, and you get a much more even sugar response. And I love those kind of simple analogies.

Do you have one for fats, too, because we seem to be confused whether we should be lowfat, high fat. Are there good fats? Are there bad fats? Then this whole ketogenic diet issue. How do you help people understand how to get the good fats and avoid the bad fats?

Dr. Joseph Lamb: Well, one of the simplest ways to do that is to tell them to eat foods to get their fat. So eat an avocado. Eat an olive. Eat a nut. Eat a seed. Those sorts of approaches get us our better fats. Eat a piece of fish. That's going to bring us our better fats when we eat them as food. When we process them, there's a lot more potential for them not to be good for us by the time they're processed.

Extra virgin olive oil, when you start talking about some of the processing that takes place there, by the time you get to the end, it's kind of the dredges of

what's left are to still be called olive oil. Similarly it falls into the whole what does free range chicken mean. I think you were at the same conference a few years ago, an IFM conference. And the speaker was talking about our food sources.

And she flashed up this slide. It looked like a low slung concrete building about a football field in length. It was short. It was dark inside. It had a metal roof. And it had a door at one end with a small half court basketball court on the outside of it. But all the food was inside, and all the chickens were inside. And because they had the potential for going out to that small court, those were free range chickens.

Dr. Mark Menolascino: Yeah, I think it was 2000 chickens. And that space outside was a 12-foot by 12-foot courtyard fenced in with one little hole to get out. And none of the chickens were there because they were all inside where the food was. So you're so right about what we portray as healthy may not be so healthy.

How about things like meats and vegetables, fruits? Where do you spend your money for getting the best value with the latest toxicity, with the healthiest quality? May I ask you, do have any good rules of thumb for that?

Dr. Joseph Lamb: Well, one rule that I keep going back to is there's always a better choice. Because one of the things that can easily happen to us is we can't make the best choice always. And then if it's not the best choice, kind of the way we think, it's yes or no. So if it's not best, oh well, it doesn't matter. I'm not making the best choice. But when you're trying to make lifestyle choices, a better choice works.

Dr. Jeff Bland said years ago at a conference I was attending, Complimentary Cancer Care Conference by Jim Gordon, Dr. Jim Gordon, Jeff said, "If you took a book, like if you went into a heath food store and read all the books, or you went somewhere else and read all the books and made a list of everything you couldn't eat, by the time you were done you'd be allowed to eat nothing." So start just making the better choices.

So for me, at the top, I put as close to nature as you can get for your meat sources, so wild caught fish and wild game. And generally we call beef not so great, but there's more free range grass fed organic beef available than pastured. And pastured's the word they use for chickens that are better than free range. Beef when it's free range really means it's out in the field. They're not in little stalls like that. But the more you can read and the closer you can

get to the condition that that food would've been in makes a big difference. And yes it's ideal for foods to be organic, but you're not going to hurt yourself eating a fresh vegetable if it's not organic compared to eating something that came out of a can that had BPA in it in the plastic lining or skipping it altogether and eating something highly processed, so again, a hierarchy.

When I tell people to eat foods, I tell them to eat quality protein. I tell them to eat lots of non starchy vegetables, the best fruits or berries. They're relatively low glycemic. And they provide a lot of color. And I tell them to try to eat their fats, going back to that avocado or olives or nuts or seeds or some coconut, that sort of thing.

Dr. Mark Menolascino: Well you were talking about BPA or bisphenol A. it's a hormone disruptor for women for estrogen and likely thyroid as well. I had a female patient that I could not figure out what was going on with her hormones. She was taking a synthetic one. We switched her to bioidenticals. And her numbers were through the roof. And she was getting worse. And it turns out she was a cashier handling receipts. And those electronic receipts are actually loaded with BPA. And you would never know it. In the rest of her life she was doing everything right, eating organic, clean water, clean air, clean food. And she was sabotaging herself by just these receipts.

You talked a little bit about hormones and toxicity. And if I may kind of switch gears, Joe, I know you're an expert in so many things. And hormones are one that I think our viewers really get misinformation. Should you take hormones? Should you not? What's the benefit? They're good for you; they're bad for you. They're good for the heart, bad for the heart, good for Alzheimer's, bad for Alzheimer's. How do you advise women that come into you in perimenopause or menopause, that 45 to 55 year old woman that's looking for optimal health? What type of suggestions do you make to her about how to address her hormones?

Dr. Joseph Lamb: Well probably the first thing I would say to anybody, male or female, interested in hormones, because a lot of men are doing it as well, but I would say get real scared about a practitioner who does the same thing for everybody.

Dr. Mark Menolascino: Yes.

Dr. Joseph Lamb: If someone says, "I believe that hormones are good for everybody," then they may not [inaudible]. Yeah, they may not really be personalizing it. For women, we have really contradictory information,

depending if you try to synthesize it all or you just try to read a couple of facts about what hormones mean. All the early studies showing the benefit of hormone replacement for perimenopausal and menopausal women clearly showed… and these were all kind of retrospective studies, so they looked at big groups of women after the fact. So they went back and looked at their history and said oh, they've been on hormones for ten years. And how much heart disease did they have?

And in these retrospective kind of population studies, it really looked like there was a benefit. And that really fueled the real emphasis on hormone replacement through the 1990s and into the early 2000s. And then the Women's Health Initiative came out, and suddenly we were calling hormone replacement for women the most dangerous thing in the world. We talked about an increased thromboembolic disease, which means clots, either in place or one that we throw, or an increased heart disease.

And it certainly was demonstrated not to benefit heart disease. And we looked at that study, and we suddenly started saying no woman should get hormones anymore because if the benefits were for their heart and for their bones and we have other drugs, which is a whole other conversation. But if we have other drugs that could help with osteoporosis and we're not helping with the heart, then let's do something else for women's symptoms.

The fault with the Women's Health Initiative, unfortunately, was that it was a study where they made some good assumptions without realizing what those assumptions led them into. Number one, they wanted symptomatic women. And number two, they wanted hormone naïve women, or estrogen naïve women, meaning they hadn't been taking a low dose birth control pill during their 40s, or they hadn't been on hormone replacement.

So typically women who have persistent symptoms as they've gone through perimenopause or menopause are, in some ways, less healthy. And then you take a group who are a fair number of years away from the time that menopause took place, and they're still having symptoms, and they've never been on estrogens, and you put them on estrogen, and that's what we showed.

We basically showed, in a group of women, on average, about five to ten years out for menopause, you put them on estrogens in the setting of not being particularly healthy and having persistent symptoms, you don't have a benefit for heart disease. The study was stopped early. And what does early mean? It was stopped after a few years, when the safety committee looked at the data and said we aren't helping women. But when safety committees look at this

data, they don't get the benefit of the deep dive and trying to understand it all. They're making a decision: we better just stop what we're doing. And they did stop.

But the interesting thing was, in women who were started at menopause or in perimenopause on the hormones, so started early on, that group actually was showing a trend towards a reduction in heart disease. So I think the most important thing if a woman came into me would be timing. When did you stop having your periods, and has it been more than five years, number one. Number two, how healthy are you or not healthy are you? And then doing all the advanced cardiovascular testing that we talked about because it's been demonstrated that estrogen doesn't necessarily help in established heart disease.

They actually did a study years back with men and gave them high dose estrogen. It was probably a study done in the late 70s, early 80s, relatively high dose estrogen, under the premise that it would be better to have the estrogenic effect and still be alive than to die of coronary artery disease. And they didn't show a benefit with the high estrogen in men with established disease. And I think that would be the same case for women with established disease.

And that's the point we talked about earlier. It's the person who looks relatively healthy, had a normal stress test, had a normal lipid profile - you think everything's great - but when you dug deeper it wasn't. That woman's going to be made worse by estrogen. So you define your risk. You define what your potential benefits are. And then you have discussions. And then you revisit that discussion.

Dr. Mark Menolascino: For everyone viewing, this is such a great example of how Dr. Joseph Lamb practices medicine. He individualizes each individual's approach. This is personalized medicine. It's not one size fits all. That was a great review of what the literature tells us, but what does it tell you for the person in front of you? And I love that you're going to look at all these different aspects.

I was board certified 25 years ago to do hormone therapy through one of the certification bodies. I did a lot then. I'm trying not to now. I'm trying to fix the problem upstream and look at this person in front of me in a complete, whole person way. What do I really need to do to get her symptom relief but also protect her heart, protect her brain? Do you see a difference, Joe, with the

synthetic prescription hormones versus the bioidentical prescription hormones?

Dr. Joseph Lamb: I do. And first of all, it really means… when you said you practice exactly the way I do, you practice a personalized medicine approach. And that's why I respect you and wanted to be on your summit here, because we're all part of that group that's trying to change how people's care is.

In terms of bioidentical hormones versus a traditional pharmaceutical hormone, language is a big issue here because we say bioidentical because we can't say natural because actually some of the hormones that we don't think are so good are natural. The classic conjugated equine estrogen that women were given for years were estrogen collected from a pregnant mare's urine. And when they did that they got some metabolites that no woman has ever seen.

They don't normally see those estrogens. And though that was a natural source, because it came directly from an animal, it wasn't similar to the hormones that women take. We don't have a natural source for all the estrogen that women take, so we've turned to plant sources. And we do things in the laboratory to modify them so that their structures are identical to the sources that women do take. So that's where the term bioidentical hormone comes from.

And basically I think when you use bioidentical hormones and when you administer your estrogen preferably in a topical or a topical equivalent form, meaning you don't take your estrogen orally, you've really reduced your risks fairly dramatically for some of the side effects. The studies really do seem to show that women do better with the bioidentical hormones. There's a lot of pushback. There's a lot of concern that compounding pharmacies may not do their work well.

But good practitioners pick out good compounding pharmacies. And they usually know the safe ones for you to go to. And if you still have concerns, there are now pharmaceutically available forms of bioidentical hormones, both progesterone and estrodiol, that you can get.

Dr. Mark Menolascino: Well, that's great, Joe. I hope everyone viewing can really see the breadth and depth of the kind of medicine you practice. You can talk about phytonutrients, diets, cardiovascular, inflammation, hormones, toxicity. You really can run the whole gamut. And I so much appreciate you being with me, Joe.

Dr. Joseph Lamb: Thank you.

Dr. Mark Menolascino: For all of our viewers, Dr. Joseph Lamb, how do they learn more about you and connect with you more? I know you've just moved to Seattle. Last time we talked you were buying kayaks. I hope you're getting out on the water. That's super exciting.

Dr. Joseph Lamb: I am. We're filming this on the 5th of October. And we just sort of opened the doors on the first of October for our new clinic, Personalized Lifestyle Medicine Clinic by Metagenics right here in Gig Harbor, Washington. And when I say opened the doors, that's a loose term because we still don't have floors, and we still don't have paint, and we still don't have a lot of things. We're going to be seeing patients by early in the new year. We're hoping to start, actually, late this year in December. The clinic telephone number if someone wanted to reach us is 253-853-7233.

Dr. Mark Menolascino: Well, Joe, that's great. You're working in a clinic that's actually collecting data to help us answer some of these burning questions of what should women do. What are some of the things you're interested in looking at in some of these clinical trials?

Dr. Joseph Lamb: Yeah, so we're open to the public. And we're running probably the largest study that's been done yet on functional medicine. It's LIFEhouse, and it stands for Lifestyle Intervention and Functional Evaluation, a health outcomes survey, hard to say.

Dr. Mark Menolascino: LIFE House. That's great.

Dr. Joseph Lamb: Yeah. And we are looking to two things that we want to gain out of the study. As we talked about early on today, wellness is more than the simple absence of disease. But if we try to define it simply by not having a disease or not having a risk factor, then we're defining it in the negative.

So one of the things the study's aiming to do is to determine the functional markers of health. And everybody's getting their microbiome looked at in terms of their gut bacteria that we live with. We're doing genomic data on everybody. We're doing a nutritional physical exam - Dr. Michael Stone's work - on everybody. We're putting all of these components together to describe what health is.

And then we're kind of, in these 400 people who are in the process of being

enrolled, we're prescribing a personalized functional medicine evaluation and across the board kind of an employee health model to demonstrate that this is something that your insurance company should want to buy into.

Dr. Mark Menolascino: How fantastic, Joe. That's the kind of answers that all of us are looking for. And it's so exciting that you're going to do the work to really help us with that information.

Again, Dr. Joseph Lamb, one of the world's experts in medicine, integrative medicine, and functional medicine. Thank you so very much for joining us today.

Dr. Joseph Lamb: Thank you. It was a pleasure.