Introduction and Dr. Felice Gershu2019s Background

All right, everybody, welcome back. Another exciting episode, very important episode of Reversing Heart Disease. Naturally Summit 2.0. And we are going to talk about a topic that so many of you need to and want to hear about.

Our guest is the Amazing and DrTalks Summit star, Dr. Felice Gersh Dr. Gersh and I have been friends for a long time. I'm very happy to say we share a lot of common interests, but not identical training.

She graduated University of Southern California School of Medicine. She is an MD. She studied OB-GYN in the Kaiser Hospital system in Los Angeles. She won that top resident award.

I think that was about five years ago. And then she's been in private practice doing women's health care. But about 12 years ago, she did a fellowship in integrative medicine at University of Arizona.

That's the famous Dr. Andrew Weil and the big white beard. And she became a dual board-certified integrative gynecologist and all our other areas. And she has a great practice in Orange County, California.

She has a great book. I've read and read a lot of gynecology books, S. O. S., PCOS. That's a great book I recommend. Maybe we'll talk about PCOS a little bit, but we brought Dr. Gersh on because she's such an expert on women's health and heart disease and avoiding heart disease.

Well, we're going to pick our brain about heart disease in women. Is that okay, Dr. Gersh? That would be my pleasure. It's a very big deal. So I'm so happy we have this opportunity.

And thank you for taking the time. So, you know, when you see a 45, 50, 55 year old woman over the years, I mean, do they come in asking about heart disease or something you bring up because you know that they should be thinking a bit about heart disease?

Well, I would say it is in the vast majority of cases something that I bring up because women are actually quite unaware of their risk for cardiovascular events and they feel very protected because they're they're aware that as younger reproductive aged women, they have a lower incidence of heart attacks than men.

And they don't understand that as they transition into the perimenopause and menopausal years, that their risk grows dramatic. And these risks are occurring that changes in the vascular system are occurring silently.

I call them the covert symptoms of transition into menopause, and they are not aware of them and therefore they do not take any proactive steps.

Why Womenu2019s Heart Disease Risk Is Often Missed

And so that is my job as a really a preventive medicine doctor, because my role is very best at preventing bad events rather than reversing end stage disease.

Okay, so your opinion and I wouldn't match it. Of course. You know, I have a cardiology practice. Women come and see me. I would say at least half of my patients are women.

So they've made a decision maybe because they don't feel good. Palpitation, fatigue, shortness of breath, or maybe their family history or their lab values.

But you're seeing women that aren't coming to a cardiologist or coming to an integrative gynecologist, maybe for their PCOS. And you're the one bringing up the heart disease topic.

They're not necessarily focused on it, huh? Absolutely. And in fact, I do a very thorough history intake on all of my patients because many of them are not aware that events that have been occurring throughout their reproductive lifespan have a big impact on their cardiovascular risk as they age.

For example, when they were younger, did they have regular cycles that actually is now known to be a risk factor, irregular cycles? Did they have PCOS?

Did they have pregnancy complications, which is now recognized as a risk factor for cardiometabolic disease as women transition into the menopausal years and thereafter.

So taking a history, understanding their risk, and then getting testing. I love data. So then I get testing on my women patients and really educate them as to why this is happening and the fundamental differences between male physiology and female physiology, the role of hormones, what happens within the cardiovascular system and all of their metabolic regulation as they lose their ovarian functionality, what we call ovarian senescence or aging.

And the dramatic impact that this has throughout their body and the tremendous increase in risk factors that are created in their bodies. So there are some women before menopause that, well, number one is a variety of heart diseases.

You can have racing heartbeats at age 14. You can have blackout spells when you're 9, and you're going to be born with congenital heart disease. But we're talking more about the acquired atherosclerosis.

And there are some women before menopause, maybe they've been smoking a pack or two a day. Maybe they develop type one diabetes as a child. Maybe they have familial hyperlipidemia, a cholesterol of 450 since birth.

And we have to be aware of that and do our work. But you see a woman who's 48 years old in their periods are becoming irregular and she's starting to have a few hot flashes.

What's going on in the body? Give us a little bit of that. And that over the next ten years is going to bring her heart disease risk as close to many men who, you know, we unfortunately get a premature advantage in heart disease. But you women catch up.

So what's happening in the average women entering menopause, that really makes her a heart disease risk by age 60, 65 for sure. Well, it really is all about the reduction in the production predominantly of estradiol, the estrogen produced by the ovaries.

So as women are approaching menopause and we need to recognize the word menopause is really an arbitrary definition of an event that occurs over time.

And so the official definition of menopause is 12 consecutive months without any spontaneous bleeding. Well, I mean, it could be 18 months. It could be 11 months. It could be six months.

I mean, these are arbitrary, made up definitions. So it's important for women to understand that it's a scope. It's a progression of ovarian changes and decline.

And throughout this time frame, which can easily go over ten years and it kind of accompanies fertility decline, we know that women in their late thirties are less fertile than women in their early twenties and so on, and it's because of changes within the ovaries, the egg quality, the number of eggs and the production of hormones changes.

And although there can be fluctuations, there can actually be, you know, steep jump drops in the production of estrogen along this path. But the general trajectory is down and estradiol.

I talk over and over is the master of metabolic homeostasis. It regulates metabolism and that is essential for optimal fertility and pregnancy. We need to have the proper, you know, creation of energy to match the energy intake.

Menopause, Estradiol Loss, and Cardiovascular Changes

So that's all about the production distribution and storage, storage, utilization of energy and the maintain the maintenance of every organ system to be optimally functional.

So when you no longer need to have reproduction, of course, nature just says you're done, you know, and it's kind of on the decline and then it's over.

You lose your vital life hormone estradiol being produced from the ovary. And unbeknownst to women, as this process is occurring, they may have some what I call the overt symptoms like night sweats and hot flashes, which are sort of the the most commonly recognized symptoms.

That's because the thermoregulatory centers in the brain in the hypothalamus are really regulated in great measure by estradiol. And so they become like disregulated.

But that's like the tip of the iceberg because the vascular system has estrogen receptors. The myocardium, the neurological system that is the the autonomic nervous system that helps maintain proper heartbeat so that you maintain your stress under proper control on the dilation, the production of many enzyme systems are modulator, are regulated by estradiol that is not really well-recognized.

The whole a whole system called the wrasse system, the rhenium, the renin angiotensin aldosterone system which regulates blood pressure and fluid and electrolyte imbalances and imbalances is really modulated by estradiol.

So all systems in the body as you transition and the estradiol level production is going down, these are all becoming less optimal in terms of how things are working.

So without any recognize Asian, a woman may notice her well. If she has her blood pressure checked, her blood pressure starts to rise. If it were checked, it would be found that her energy production in her heart can actually go down.

And this is an interesting finding that many cardiologists may notice when they do echocardiograms on women as they're going into menopause, that they have mild diastolic dysfunction like an energy deficiency because mitral Andrea the essential energy producing model little organelles in each cell that produce energy.

The mitochondria cannot work properly. When you don't have enough estradiol for a whole host of reasons, you can't produce enough energy and as well you can't maintain the health of the mitochondria because you produce a toxic byproduct.

When you create energy which needs to be eliminated called superoxide, and that requires the proper function of an enzyme superoxide dismutase which requires estradiol.

So there's so many systems in the body that require estradiol for proper function, and that includes every aspect of the cardiovascular system. So things are changing, but they're not recognized because except for a few obvious symptoms like night sweats and hot flashes, sometimes vaginal dryness, the the systems that are changing on that are like not overt, like changes in blood pressure, vascular health, myocardial energy production.

Those are not obvious. And these are happening to women before that last period even happens during the years preceding. All right. So you see a woman again, 50 years old, she's gone 14 months without bleeding.

She's having maybe a few menopausal symptoms. And you ask her. I'm sure you ask her. She is an internist, a family doctor and all the rest. And she says, yeah, but you know, it's the same routine blood work.

Are you going to dove in is an integrative gynecologists also recognizing there aren't a lot of integrative gynecologists are you going to dove in and get a more than average blood panel?

And what else might you do? Let's say she has a family history. Her mother had a stroke at age 54 and her father had bypass surgery at age 48. I mean, that's sounds dramatic, but there's a lot of people out there like that.

Are you going to dove in and order some stuff? I sure am. And I do want to work as a team. So everything that I do, I do tell them to bring to their other physicians, because I'm not trying to work behind anybody's back whatsoever, but I do want to help them to recognize their risk and then also share that knowledge with every other physician.

So I like to get inflammation markers. I know we've talked about this many times in the past over years because now we do understand that inflammation is really underlying many of the problems that occur.

And then, of course, you have to go into why is this inflammation happening? And it can be a host of things, including hormonal dysregulation, endocrine disruptors, chemicals, pollution, nutrient nutritional deficiencies, sleep deprivation, chronic stress.

There's a whole host of things, and usually it's what I call the perfect storm. It's not just one thing, it's a host of things. But I love to get inflammation markers looking at high sensitivity C-reactive protein.

I like to look at some of the enzymes like LP play to sometimes my low peroxide days. I like to look at homocysteine and I like to look at nutrients, some of the basic nutrients, at least like B12.

I always want to check ferritin like iron. I want to check vitamin D too, and I may look at some of the others like Coke, Q10, Omega three. So I want to look at some of the nutrients.

I look at thyroid because thyroid disorders are extremely prevalent in women. Autoimmune thyroid is very common. So I like to look at all of these markers and I like to look at a more will say, advanced lipid profile, not just the standard one from like 60 years ago, I looked like to look at more particles, the apolipoprotein LP, little AA, which I know is really coming into big attention getting at last and a lot of people don't know talking about lipoprotein little a that estradiol is actually one of the modulators of it so it tends to go up after menopause as well as there are other, you know, genetic factors. But that's actually one of them.

And in terms of cholesterol, all cholesterol almost always goes up in women when their estradiol level goes down because the LDL receptors in the liver, which are so key to modulating lipid levels, really don't function as well.

And as well, the whole immune system is regulated modulated by estradiol. So you tend to have more inflammation occurring which creates oxidation or when acidity of cholesterol, which then can lead to plaque formation and more inflammation.

So I like to get as many of these tests and in my office I have a really amazing ultrasound tech and she does ultrasounds of the carotid arteries, the aorta, the leg arteries and as well I order coronary calcium scores, which I know, you know, we're both big fans of.

So I want to get all this data. And unfortunately, sometimes very busy practitioners are missing the boat, in my opinion, and they're not getting these tests on women.

At least they're not even thinking of them until they're over 65. Wow. So you really are doing what we've talked about in other interviews in this summit, which is don't accept the average you know, we talk a lot about be moderate and everything.

I was thinking about that this morning but we're moderate in our lab values are moderate in our testing. We're moderate in our conversations with patients about lifestyle and diet.

When, you know, Dr. Esselstyn certainly is talking about extreme, you know, be extreme in diet. But you and I, we're a bit extreme compared to the mainstream in testing because we do know that this disease called coronary artery disease is a big risk to men and women.

And we have the technology right now to know everything about anybody's heart. It isn't necessarily expensive if you don't have health insurance, you can get these amazing panels of blood work now that you self-pay for by a company like life force ecom life extension dot com function health.com.

And we never had that before. And the calcium score is inexpensive. Probably a bit more in Orange County than it is in Detroit area where it's about $75, but it's still worth it, whatever it is.

How about women? You know, women tell you that figures before I go, they always say this is they're about to walk out the exam room. I've been having fatigue, my workouts.

Testing, Risk Markers, and Preventive Screening

Aaron is good. My heart's racing. I'm getting a bit winded up the stairs. I mean, what kind of symptoms have you seen in your career that have caused you to be a bit concerned about actual heart disease?

Not the potential, but actual heart disease in women? Well, absolutely. Women may have much more subtle findings and symptoms compared to men when they're developing coronary artery disease.

In fact, what you just described, just feeling fatigue or just sort of a sense of like low energy, poor sleep. This this can actually be a sign of vascular disease.

And one of the other big ones that's so ignored is anxiety, like women sometimes will just feel this sense of unease, like something is wrong and they're just like written off like, oh, another woman who needs Prozac or something and really it's a sign of coronary artery disease.

So you really have to think differently. They they don't necessarily come in with that, like television, heart attack, you know, the crushing pain type of thing.

They can also have GI dysfunction like they may just have nausea or just sort of feel like they're having some GI disturbance or just something going on that's wrong in their intestinal tract.

And it can really be cardiovascular disease. Women don't have everything the same as men. And and you have to think that once again, I always go back and this became so evident to me as a woman obstetrician delivering thousands of babies.

That pregnancy, even now it's talked about. But it wasn't back years ago, decades ago that pregnancy is the ultimate stress test for women. And a woman's heart in pregnancy has to pump at least 50% the amount of blood volume that that you would ever pump any other time of her life.

So the heart and vascular system of a woman really is has to be able to accommodate a pregnancy. And that makes it different than a man's. And that's why she can react differently.

We know the immune system in a woman is much more robust than in a man. So when it goes wrong, like with autoimmune disease, it goes wrong in, you know, in spades.

And a lot of doctors don't realize that autoimmune diseases which are so prevalent now, 80% in women, are cardiovasc ular risk factors like just like rheumatoid arthritis is a risk factor.

And even issues that are like endometriosis, unique female diseases, even women who've had history of uterine fibroids have a higher risk of hypertension.

So being aware of these subtle things like fatigue, nausea, anxiety, prior history of autoimmune diseases or current history or pregnancy or female related specific issues are all red flags that this woman may have active disease, not just potential for a disease.

Okay, so that's a wakeup call to everybody that even subtle findings like, you know, fatigue and shortness of breath and palpitations and exercise intolerance that previously was, you know, not a problem whether it occurs before menopause, particularly from menopause on, when atherosclerotic risk goes up, should never be ignored.

In fact, women have an advantage when even lifespans dropping for women. I read today that the gap this isn't really exactly relevant to conversation, but we all know that women on average live longer than men, not necessarily in the best quality of life.

There's a life span and then there's health span. That healthy period of your life. Hopefully your health span is as long as your life span, but we don't all get that.

But the gap between men and women has expanded, mainly because men's life span are going down and women are stable. They're not going up anymore. Corner disease remains.

You know that, number one, cause they're so we need to be aware of all these topics. How do you relate to the cardiology just in town? Some of them have never seen the lab work.

You do? I don't know. Do you use LabCorp Quest to use vibrant health, one of the other lab providers? Well, I most of the time use Quest and Cleveland Hall Lab, which is part of Quest.

But I've had patients come in with all of the above that that you mentioned. And I do try to, like I said, work in a cooperative manner with everyone's doctors.

And I will sometimes just write little notes. I'll say I'm happy to make a phone call or to talk about it. And like what you were talking about is so important for everyone to recognize that, for example, by the time a woman reaches 65, her potential for a stroke or a ruptured aneurysm becomes greater than for a man.

I mean, these are like big deal issues, cardiovascular disease for women and many cardiologists, you know, such as you, they recognize it. But not not all the family doctors and most of my patients actually don't have cardiologists unless they've already had some major event or their somebody told them they should go to a preventive cardiologist.

But that's not really common in my area for people to just go to a cardiologist. It happens. But, you know, without having a prior issue, like at least one being found to have mitral valve prolapse or, you know, A-fib, which is now I'm sure you see tons of it.

A-fib is really common in women, and that's probably the leading cause of my patients ending up in a cardiologists office. And that's a whole different world than just trying to be proactive and preventative.

But I would say that most of the family docs that are in the area are really not as attuned as I wish they would be about women and cardiovascular health.

If everyone had a cardiologist, it'd probably be a little different. I don't think there's enough to go around. Absolutely. And you explain things so clearly.

Now I understand why for at least 13 years you won the Physician of the Year award from Orange County Medical Association and many times been on the Super Doctor Award list, too, because you just make it clear cut.

Well, before we go, and I don't want you to go anywhere, Dr. Gersh. I want you just we share an interest in fasting. And we both used Dr. Walter Longo's role on a program five day fasting, mimicking diet by al-Nusra.

I did have a chance to interview Dr. William Seu, their medical director for this summit. We talked mainly about diabetes. Just give us a couple minutes on your experience with role on in women and what you hope they benefit from doing a periodic five day fasting mimicking diet?

Well, I am pushing them as much as I can to do more studies involving a lot of women and women at unique times of their lives.

Womenu2019s Symptoms, Cardiology, and Cooperative Care

But based on my own observations, what I finding is that women do have more challenges with doing the the fasting mimicking diet than men. They don't lose as much weight.

They have higher rates of dropout. So I prepare all of my women patients before they get into fasting of any sort, particularly fasting mimicking diets by doing a month or even a little longer of what we call the anti-inflammatory gut reset, which is basically taking them off proactively of all process foods and sugar added foods, trying to get them on a really high vegetable plant based diet, increasing their fiber intake and trying to nurture their gut microbiome, helping them to get on a more timed eating regimen and preparing them for doing the fasting, mimicking diet for doing pro line.

I'm also finding that women who are not on any if they're in menopause, if they're not on an estrogen supplement, you know, basically hormone replacement therapy, they don't do as well.

So I've actually done a bit of a deep dove and all of the mechanisms that are involved in involving you may have talked about these things, you know, the production of of ATP, talking about the sirtuins and the histone deacetylase is which are, you know, the sirtuins and all of the different mechanisms that come into play, autophagy, programed, cell suicide, all of these mechanisms actually require estradiol for optimal function.

So I'm finding that I don't do as well with women going through this process if they don't have adequate estrogen on board. So I think we definitely do need to get more research on that.

In terms of women on birth control pills, I don't think because those are not natural hormones either. I don't think we're getting as optimal an outcome.

So we definitely need to get more research involving women and the relationship of their hormones. And even in terms of when if a woman is having natural menstrual cycles, say she's not perimenopausal yet or in menopause or she's still have been cycles, when is it the best time I my research is that it should be done in the proliferative phase.

So that's rather I'm sorry, the opposite. Let me make that very clear. I want it done in the luteal phase because if you do fasting of any kind in the proliferative phase that's prior to ovulation, you may actually prevent ovulation because the brain will sense, oh, there's not enough nutrients coming in, let's not make a baby the cycle and we'll just prevent ovulation.

So we don't really want to do any sort of multiday fasting during the time preceding ovulation. But actually there's some published data going back to the 1990s that if you do fasting, multi-day fasting or fasting mimicking, they didn't do the study on that, but it should be similar during the luteal phase or after ovulation.

It actually increases vagal tone or parasympathetic output. It lowers heartbeat, blood pressure, it's calming and it actually improves premenstrual syndrome symptoms.

So do it any multi-day fasting or fasting mimicking in the luteal phase. And I just want to shift gears for a couple of minutes. Your other book is on PCOS, Polycystic Ovarian Syndrome.

Nobody has mentioned that during this summit. We're talking about women and their risk for heart disease. Tell us about whether PCOS, first of all, poly cystic ovarian syndrome and tried to find it.

Tell us, you know how you would recognize it. In under a minute, I meet you in an elevator and say, What's PCOS? And then what's the relationship to development of heart disease, young or old?

So it's a hormonal dysfunction that is the most common endocrine disorder of reproductive age women. It's associated with elevated androgens. So that would be like high testosterone.

So they have acne, facial hair, thinning hair, irregular cycles. And on ultrasound, the typical tiny little cysts that are around the rim or cortex of the ovary.

Fasting Mimicking Diets and Hormone Considerations

So that's how you define the condition. All right. And since we're talking about, you know, heart disease, predominately atherosclerotic heart disease blockages, that was about, you know, any concern between that syndrome and developing heart disease.

Is a very high correlation. Unfortunately, women with PCOS tend to be quite metabolically unhealthy. About 80% are overweight and often have very severe obesity.

By age 40, they have seven times the risk of being diabetic. They have significantly increased risk for having nonalcoholic fatty liver disease. They have high risk for hypertension and heart attacks and strokes at earlier ages.

So it is a very serious disease. I consider it a condition of premature aging and some clever person out there came up with the term flame aging inflammation due to metabolic dysfunction.

And then there's the older, the more typical they call inflamm aging inflammation associated with aging. They are the medical imaging group. They have metabolic dysfunction, creating systemic levels of inflammation that lead to a host of metabolic disorders, including diabetes, hypertension, heart attack, risk, and the whole host of pregnancy related problems and complications.

All right. And, you know, I read your book. I learned a lot from it. Again, PCOS, S. O. S.. I got that right. That's it. Okay. I wasn't sure if I had it backwards.

And you do talk a lot about a supplement. Most of us have not heard much about Inositol all being of some use in this syndrome. There's other ways to treat it.

But tell us a little bit about Inositol. Well. Oh, I would be so excited to do so. So one of the big problems that underlies the development of PCOS is that in the ovary there is a conversion from testosterone into estradiol.

That's all estradiol, which is the estrogen produced in the ovary is derived from testosterone, made in the ovary in a different part of the ovary. And the conversion requires the action of an enzyme called aromatase.

And for this enzyme to work properly, you need to have the action of Milo Inositol. Okay, so in the normal, healthy ovary of a reproductive woman, there is a ratio of inositol as myo-inositol to a different form called D-chiro of 100 to 1.

But in women with PCOS, the ratio is only 12 to 1 on average and D-chiro, which has other benefits in the liver but in the ovary, it actually can block the effect of the Myo-inositol.

So the inositol cells are actually sugar alcohols and they're all stereo isomers. So what that means, they're all the same molecular composition, but they're arranged differently in space, like my hand in different configurations, it's still my hand.

Those are stereo isomers. So the form called Myo-inositol is critically important in the ovary for the conversion of testosterone to estradiol. And when that doesn't happen, you end up with too much testosterone, which is what they have and not enough estradiol.

And that's why you can see I'm so glad you brought this up. The similarities in the cardiometabolic dysfunctions of women with PCOS and women going into menopause, they have a similar problem spectrum of cardio metabolic

diseases, but women with PCOS are having them because of an extra Odile insufficiency.

And then they go into all of these problems. But that is treatable. I can't that we can help the ovary to be healthier and make estradiol better in a PCOS women.

Whereas in menopause when it's done, it's done. So you either give the hormone or they don't have it with PCOS.

PCOS, Inositol, and Metabolic Heart Risk

That's why I talk about so many of the lifestyle issues and giving Myo-inositol to women with PCOS has been shown to actually improve their capability of making estradiol and improving the quality of, the eggs and the health of the ovaries.

So this to me is an essential part of the therapeutic approach to women with PCOS. And you can just if a person really wanted to working with somebody, but this is not an exotic supplement.

You can go on our favorite online seller that everybody uses, good or bad, and you can find many, many brands of Inositol. What's a typical dose and what say your preferred provider?

Well, Myo-inositol. The dosing is typically two grams twice a day and I typically use pure encapsulation, but there are many other very good companies and I just want to mention with D-chiro there is sort of a an undercurrent of use of a small amount of D-chiro in the ratios, a.

Version of Inositol, D-chiro. Right? So that's just a different arrangement of the same formula in molecular formulation. Now in the liver D-chiro Inositol is very important for glucose regulation.

And so it's, it is like very important. But in the ovary it can block the action of Myo-inositol at all in orally it can actually block the absorption.

So you have to be careful. But there is more and more research coming out that there may be some proper ratio of giving. These there is no harm in giving it in as a small amount of D-chiro, but we don't want to give too much that we have to be careful about that.

I've read like 40 to 1. I don't know, it's at 40. Well, Myo-inositol and D-chiro and I said at all. That ratio was found in the blood. But the problem is if you had that in the blood, first of all, if you swallow it even in that ratio, how do you know it's going to be in the blood in that ratio and in the ovary?

You want it to be 100 to 1 ratio, not 40 to 1. So, you know, but it's not harmful. Anyone who wants to take it in the 40 to 1, that's not going to be a problem.

Okay. And last question then. We're done. Does a man ever use Inositol as a supplement? Yes, actually, in rather high doses, it's a combative agent. It actually can treat anxiety.

So, yes, it can be used and predominantly for anxiety D-chiro should be also of benefit for men and postmenopausal women where you're not even worried about the ovary at all because it's just not it's not online any more in terms of producing estrogen, but D-chiro does have benefits in terms of glucose regulation.

I know much more about it in women, but I can't imagine why it wouldn't be beneficial for men as well. Excellent. All right. Well, Dr. Gersh, thank you for taking your time.

Thank you for sharing with us. Reversing Heart Disease Naturally Summit You've added so much value and so much education. Thank you. Have a healthy, happy 2024 Same to you.