



## **Transcript Details**

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Women and Heart Health: Improving Care with Knowledge and Cardiovascular Risk Assessment Tools

#### Announcer:

Welcome to ReachMD. This medical industry feature, titled Women and Heart Health: Identifying Risk of Cardiovascular Disease with Advanced CVD Markers, is brought to you by Quest Diagnostics.

Here's Dr. Jay Wohlgemuth.

## Dr. Wohlgemuth:

I'm Jay Wohlgemuth, a Chief Medical Officer at Quest Diagnostics, and we're here today to discuss the underlying reasons why cardiovascular disease is still the number one killer in the United States and still the number one killer of women in the United States. I'm here with Dr. Felice Gersh, who is Board Certified in Integrative Medicine, Obstetrics, and Gynecology. Welcome, thanks for coming today.

### Dr. Gersh:

Oh, it's my pleasure Jay. I'm so happy to join you and talk about this critically important topic.

# Dr. Wohlgemuth:

Let's talk about cardiovascular disease, and cardiovascular disease is the number one killer in the U.S. and, despite all the efforts in smoking cessation and with lipid treatment, the, unfortunately, it's actually on the rise again, but I think there's a misconception out there that there's not only a lower risk in women, but maybe that it shouldn't even be on the top of the list of what to address with a woman in an annual visit. So, tell us a little bit about that misconception and what really is the risk in women, for heart disease.

## Dr. Gersh:

Well, the risk is very real. As you said. In terms of younger women, it is true that there are more fatal heart attacks in men before the age of menopause for women, when you compare them to men, but women have many cardiovascular events that can occur in their lives that maybe are precursors to something that could be life threatening later in life.

For example, pregnancy-related complications. We now know that there is a very strong relationship between women, who have issues like gestational diabetes, pregnancy-induced hypertension, preeclampsia. Women who experience those complications during pregnancy, later when they transition into the menopause and then the rest of their lives in menopause, they have a substantially increased risk for developing cardiovascular events. Also, the most common endocrine disorder of women, polycystic ovary syndrome, is also a very huge risk for developing hypertension, gestational diabetes if they become pregnant, and they often have fertility problems, diabetes, like a five-fold increased risk by the time they're 40 compared to the general population.





And we all know what a huge risk diabetes is for cardiovascular events. And also, autoimmune diseases. An area that has been really overlooked as an underlying risk factor for cardiovascular events, particularly, as women get older. And older meaning in the 50s and 60s.

So we're not talking about like 80s and 90s. So, women have substantially increased risk when they have these problems during the reproductive years, and all women have substantially increased risk, as they transition through the transition into menopause.

#### Dr. Wohlgemuth:

So, let's come back to what we can do about it. I want – I do want to ask a little bit that I – I understand that many women, as their primary care provider, have a gynecologist such as yourself, who can provide primary care and that's become a role of that gynecologist. So, ACOG, the organization that – that is the body of obstetrics and – and gynecology in this country, has a role also in educating their physicians. Can you speak to educating and how you think about it as a gynecologist?

#### Dr. Gersh:

Well, years ago they did a survey. So, the survey was carried out by the American College of OB/GYN, so that's ACOG, and they found that half of OB/GYNs viewed themselves as primary care providers for women. That they would screen them. They wanted to care for them, for their whole body, all their systems, not just their reproductive organs. And the other half said, no, no, we just do surgery. You know, we're not – or deliveries – we're not really looking at the whole woman. Well, ACOG came out fairly recently and said, no, that's not going to fly. Every OB/GYN should be screening their women patients when they are transitioning around the menopause for cardiovascular risk. So, this was really a giant step forward for healthcare for women. And, the problem is, it hasn't been universally adopted yet. So, we need to really go out and educate the OB/GYNs because it's one thing to create a mandate, you must screen, but if they don't understand how to screen and then what to do with that information, then they typically, like most humans, they won't do it "because they don't want to be put in that position of like I'm not sure what to do and I'm not sure what to do with this information. So, ACOG did a good first step, but then you got to take the next steps, which is educating this entire group of OB/GYNs so that they know how to approach women and how to open the dialogue because there hasn't been a dialogue that many of them have actually even engaged in.

So, women have to understand that menopause isn't just about the end of periods. That I change the way they look at it. I say, this is not about your period stopping, although they do. It's not just about reproduction ending, which it does. It's about ovarian aging, what we call ovarian senescence. The ovaries stop making progesterone and estrogen. And estrogen is the master hormone of all metabolic processes in the body. So, as estrogen levels decline, which they do years before actual menopause. They've actually shown women during the menopausal transition years, which can go several years before menopause, well age 45 they're already in that range, they already develop atherosclerosis at a higher rate or carotid intima media thickness changing, so inflammation within the arteries is already beginning. Cholesterol starts to rise. Blood pressures start to rise. Changes in the body are already occurring. This is a process. It's not like you cross a finish line.

It's all linked together and estrogen is like the hormonal glue. It's like the glue that puts together reproductive functions.

Dr. Wohlgemuth:

Right.

Dr. Gersh:

-and metabolic functions. When you lose estrogen, you don't just lose reproduction, you actually go into a state of metabolic dysfunction and so, you're more likely to develop diabetes, hypertension-

Dr. Wohlgemuth:

Cardiovascular disease.

Dr. Gersh:

-atherosclerosis. All those things.

And, I'd like for you – to ask you about how that plays in and help explain the roll of inflammation and testing around that, in your practice.

Dr. Gersh:





So, I do want to get certain very basic things on everyone. I would definitely want to get an advanced lipid profile. So, what does that mean, advanced lipid profile? So, everyone thinks that there is like good cholesterol, there is bad cholesterol. Well, I kind of throw that in the trash, eh, like cholesterol is not actually good or bad. Cholesterol is just what it is and it's, the building blocks for steroid hormone, cell membranes-the brain. So, we need to have cholesterol. And so, we have particles. The cholesterol has to go around the body in different- and how's it going to do that? Cholesterol can't just up and go wherever it wants to go. Most cholesterol in the body comes from production in the liver. And then there are these little proteins, they're called lipoproteins-apolipoproteins, and I call them like little bubbles. So, there's different kinds of bubbles, and they carry cholesterol to different places from the liver, also from the body. They get carried back to the liver for recycling or disposal, and they come in like different sizes. And so, the apolipoprotein A1, sometimes called apo A1- that one is very linked to estrogen. Estrogen is very, very key to the proper production and functioning of apo A1. And, it's also known as reverse cholesterol. So, it's a particle that we can measure that actually is the particle that takes cholesterol and brings it back from wherever it is in the body, brings it back to the liver so that the body can get rid of it if it doesn't need it anymore. Or recycle it, if it actually does need it. And so, you want to have a really high level of this. I call it like the trash collectors. It just goes around and cleans up and so, you want a really high level and estrogen helps to maintain it as a high level, but of course, as we lose our estrogen, sometimes it comes down in numbers. So. I want to measure that and then I want to follow it over time. So. that's one thing. And then. the apolipoprotein B, also known as apo B. So, that's the little particle or the bubble that carries cholesterol that's made in the liver to all around the body. And we need cholesterol. So, it's good and that is sometimes associated with LDL cholesterol. But we don't want overproduction because that's a sign that something is going on that's not good. So, I want to measure that. So, those are key parts of advanced lipid profile testing.

## Dr. Wohlgemuth:

So, big role of advanced lipid testing and then more recently, we have seen and I have seen increased use of myeloperoxidase testing which is our advanced inflammation marker and it's measuring inflammation in the person. So help explain why that's relevant and how that plays a role.

#### Dr. Gersh:

Well, it turns out that inappropriate inflammation underlies a huge host of problems that develop in the human body. We now know that, for example, when people have dementia, it's often due to neuro inflammation and atherosclerosis doesn't just randomly happen, it's often due to inflammation that resides in the lining of the arteries. So, inflammation is a huge problem when it's inappropriate. Inflammation when it's appropriate, of course, saves our lives so we don't get infected and then die from some kind of infection, but when you have a trigger of chronic inflammation and there's a whole array of things that can trigger chronic inflammation the white blood cells can inappropriately release their enzymes, and we can measure that in blood, which is amazing because it's a sign that there's inflammation ongoing in the artery lining itself, and this is a risk for rupture of plaque because plaque doesn't kill people. It's when it ruptures and then you get like a little scab, like a little blood clot that forms on the area of rupture, and if that little clot falls off and then it goes downstream, eventually it gets stuck because the vessel gets narrower and narrower.

## Dr. Wohlgemuth:

Measuring the inflammatory response and understanding it is very important because it – it really can lead to plaque rupture. It can lead to heart attack and stroke even in people that may not have a high cholesterol or may not have some of the other risk factors.

## Dr. Gersh:

That's right. So, it can be a woman who doesn't have significant stenosis of her main coronary arteries, that she may not have a very high cholesterol, although women after menopause do tend to get much higher cholesterols but not necessarily. So, it's an independent risk factor related to this inflammatory state, and it's really wonderful that we can actually access it so simply just by a blood test, to actually know if this chronic inflammatory state is happening in the woman related to her vessels and, therefore, we can then take steps and know that anyone with a very high myeloperoxidase has a real inflammatory process going on in her vascular system, and we need to get on it right away.

## Dr. Wohlgemuth:

Well, it's actually also very interesting in the discussion of engaging women around risk because we went from menopause, which then led to, dysregulation of the lipids and led to chronic inflammation and at some point, we're talking about menopause, the risk of it in





women, convincing them it's important, but some objective tangible evidence that there's something going on in the body can be very motivating for people.

Now a lot of this is knowledge is power for the individual, right? They – once, half of your battle, if not more, is educating them that, in fact, heart disease is the number one killer in women. In fact, there are things you can do to modify the risk and, and then to your point, the what you do about it, it's not that difficult. I mean it may be difficult for life – to have lifestyle change, but there are some pretty straightforward ways to lower the risk of cardiovascular disease in a woman once she's accepted and understood that it's a real risk.

#### Dr. Gersh:

Right. You certainly can't solve a problem that you haven't even recognized. So, the first step is recognizing what the situation is, defining the problem, and then giving rational and doable steps that people can take, to really change their future, change their health. And I find that this isn't as hard as some people make it out to be. Just little things, you know, just eating more vegetables. Finding vegetables that you like. Taking more steps. Going to sleep, you know, at an appropriate time and doing stress modification. Things that we can all implement, and doctors can learn this. You know, every doctor can have a therapeutic toolbox to help their patients.

## Dr. Wohlgemuth:

Wow. Well that illustrates about everything we've talked about today at some level. And, I really appreciate the discussion. It's been wonderful and hopefully, our conversation helps, patients, women, physicians, and other folks out there that can make a difference the way you are.

#### Dr. Gersh:

Well, that's our goal and our mission and hopefully, mission accomplished.

## Dr. Wohlgemuth:

Alright. Thank you.

## Announcer:

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