Women's Hormonal Health and its Connection to Diet & Lifestyle with Hillary Wright, MEd, RD, LDN (ep – 47)

[00:00:00] **Hillary Wright:** When we looked at the research that's trying to figure out what are the biggest influences on this weight shift that is commonly occurring during the menopause transition. The sense was that physical activity is likely the biggest influence, more so than aging, more so than declining estrogen.

[00:00:18] **Ginger Hultin:** Welcome to The Good Clean Nutrition podcast.

I'm your host, Ginger Hultin, registered dietitian nutritionist. Today I'm so excited to talk to fellow registered dietitian, Hillary Wright. She has over three decades of counseling and behavior change experience. She's been a part time senior nutritionist at D. C. Dana Farber since 2006. Hillary also works as a Director of Nutrition for the Wellness Center at Boston IVF, where she provides nutrition counseling for women and men experiencing fertility challenges.

Her latest books are the Prediabetes Diet Plan and the PCOS Diet Plan. She has also co-authored the Menopause Diet Plan, a natural guide to managing hormones, health and happiness, with fellow dietitian Elizabeth Ward and now has an active nutrition consulting practice. In the first episode of this two-part series, we're focusing on menopause and PCOS.

A lot of patients come to me with a diagnosis of PCOS. That stands for polycystic ovarian syndrome, and it's more common than people might realize, though it's missed and underdiagnosed all the time. A lot of my clients have advocated heavily for themselves, and they've been told by the medical community.

Oversimplified advice, like, just go lose weight. But what people don't realize is that if you have PCOS, for many folks, it's harder to lose weight. So, I'm happy when people come to me for my expertise and my personalized advice. Because each person needs to be looked at as, what are your unique goals? And how are we going to approach this in a way that works for you?

Welcome, Hillary. I'm so excited about this conversation. We need more focus on women's health, and you really have a spectrum of focusing on what I see as very underserved diagnoses.

[00:02:02] **Hillary Wright:** It's interesting because when Liz Ward and I decided to write the menopause book, we'd both written other books, and we've been friends since college, and we'd always said we had to do something together.

And they always say in the publishing world, write about what you know. And both of us were going through the menopause transition. And we were both 55, which we're like, that's kind of old. Is that normal? Is it okay? You know what I mean? Like nobody was talking about this.

[00:02:32] **Ginger Hultin:** So, one really important thing is that a lot of us are like menopause, menopause, menopause, and you're using the language menopause transition.

Can you explain more on that?

[00:02:41] **Hillary Wright:** Yes. So, it recently came to our attention that they are sort of in the women's health world transitioning from using the term perimenopause to the menopause transition. And so what we historically referred to as perimenopause are the years leading up to menopause, which is just one day in time when you haven't had a menstrual period in 12 months.

And, you know, there are many women out there that have gone many months without a period, and then they get one and it resets the clock on their menopause. So it's definitely an irregular kind of bumpy journey, but this premenopause part of the menopause transition Lasts on average four to seven years, but can be as long as ten years.

So if the average age of menopause is 51, it's possible to have women in their early 40s that are already experiencing symptoms or things going on that turn out to be related to the menopause transition, even though they feel like they're still too young to be experiencing this.

[00:03:39] **Ginger Hultin:** So Hillary, that is happening to me right and left.

Women come to me and they're like, I'm having all these issues and all these questions, and I'm like, how old are you? And they're like, 42 or 43, and I say something to the effect of, have you talked to your doctor about perimenopause,

menopause? And they're like, no, no, no. Like, that's not for me. We really need to be talking about this more.

[00:04:03] **Hillary Wright:** Oh, for sure. And physicians need to be talking to their patients more. It's just not coming up. I don't get the sense you come in for your annual physical. You're like, oh yeah, you're this age. Let's talk about, you know, menopause or perimenopause. I just don't think it's happening. And it appears that physicians expertise in the menopause transition largely comes from their own personal interest in finding out more.

For example, there's what used to be called the North American Menopause Society, I think it's just the Menopause Society now, offers certifications for physicians, you know, and advanced level clinicians. around the menopause issues. So I think that physicians in medical school get much training on this, maybe like a lecture or something.

So there's gaps all over the place that leave women confused and vulnerable to a lot of the stuff they're seeing online, which, you know, always sounds scarier than it needs to be and confuses them and makes them very vulnerable to misinformation.

[00:04:57] **Ginger Hultin:** So how do you describe the hormonal changes that happen during the menopause transition in simple terms to your patients?

[00:05:07] **Hillary Wright:** Well, they're all over the place. Sometimes people say, I think I'm in perimenopause, should I have my hormones checked? Everything I've ever read suggests, unless you suspect you're going through premature menopause, which would, represents 10 percent of women going through menopause before the age of 45.

Then there may be some value to having a workup, but hormones change all over the place. So if you have a hormone test today, you're capturing this moment in time. It's not going to tell you what happened yesterday, what will happen next week. You know, Liz and I talk about this all the time. We thought that perimenopause was much bumpier than actually finally landing and menopause.

Women experience it to varying degrees, but you know, just talking to people and getting a sense of what types of things might you be experiencing could be related to the menopause transition. You know, and I say could because there's a lot of things that are going on in women's lives in these midlife years that cause a lot of things to happen that are undesirable or uncomfortable or stressful.

And now that menopause is having a moment, again, Liz and I talk about this all the time. It seems like everything gets blamed on menopause. But it's like reverse puberty, like most women remember going through puberty. It's tumultuous, it's emotional, it's stressful, it's what's going on with my body, this is so different.

It's like that in reverse. But again, when people aren't talking about it a lot. Particularly if what you're doing is you're going to Dr. Google or you're going to social media, you can walk away with a lot of misinformation about what this is about. So Liz and I refuse to talk about this like it's the end of the world.

I mean, the average woman is likely to live 30 to 40 percent of her life. Post menopausal, and there are some benefits to not having your period anymore. It's not all awful, but I think to have a sense of what can we do to benefit our health and maybe smooth the road a little bit, you know, when should you talk to a physician?

Like, women shouldn't be suffering with horrible hot flashes and night sweats. You know, there have been evolutions in the use of medications and hormone replacement therapy. But there's a lot of things that we can be doing. to benefit our health through this time. So, you know, in some ways it can be a time of life where if you've not been practicing the diet and lifestyle things that you've been wanting to focus on, it may feel like it's kind of coming home to roost and it might be, but it's never too late to start implementing some behavior changes around eating an activity that hopefully can last through the rest of your life and smooth the road for a lot of chronic conditions.

Not just menopause symptoms.

[00:07:49] **Ginger Hultin:** Absolutely, because when you're in your 40s and 50s and post menopausal that is when some chronic condition risks start going up, cardiovascular and some cancers.

[00:08:01] **Hillary Wright:** Just getting older raises your risk for cancer, period. That's what makes the research really difficult to interpret, how much of this menopausal symptoms stuff, this increased risk of chronic diseases, how much is related to menopause versus, again, all the other things that are going on in women's lives, you know, including possibly the fact that they have not to this point, really, been diagnosed with menopause.

paid much attention to this issue that now may feel like it's backing them into a corner.

[00:08:27] **Ginger Hultin:** What I find is people start having, like you mentioned, night sweats, hot flashes, metabolic shifts. That's a big reason that people start to reach out and say, what is going on here? So estrogen plays a huge role in that.

Can you walk us through the role of estrogen in some of these symptoms?

[00:08:44] **Hillary Wright:** Well, you know, there are receptors for estrogen on pretty much every cell in our body. And so when estrogen levels are declining, there can be effects on all the cells that are affected by it. So as we age and our estrogen levels decline, for example, it becomes more difficult to hold on to muscle mass.

If you have a woman who is aging. has declining levels of estrogen and historically has not been regularly physically active or has not really had to think much about the quality of their diet or how much they eat. All these things can start to kind of collide at the same time because the estrogen can make a lot of things more difficult.

It protects us from cardiovascular disease. It's good for our brain. It's good for your bones, right? You know, it helps to keep our bones more. mineralized. It's good for your gut. There's a lot of reasons why women on average, my understanding is the onset of heart disease is about 10 years after men. But after menopause, women and men, this is the number one killer.

Sometimes I feel like we just gloss over the cardiovascular risk when it's actually the number one killer of women and declining estrogen levels. can contribute to that. Sure. I know myself, you know, as I was going through that menopause transition, all of a sudden my cholesterol bumped up and it hadn't been bumped up before, you know, and it makes you pay attention to it.

And then I started to monitor it and watch it. And then eventually it started to come back down again. It's like a rollercoaster ride that makes the importance of diet and lifestyle more critical because I don't know about you, but I'm much more interested in the quality of the remaining years I have I don't care to live to be a hundred if this body, which is the only one I have, can't carry me through to do the things I want to do as long as I'm capable of doing it.

For me, it's largely a quality of life thing. You know, aging well requires self care, and this is a time when, again, it may kind of come home to roost if you've been kicking the can down the road.

[00:10:48] **Ginger Hultin:** Yeah, I love your empowering message of it's not too late, it's actually the perfect time. Perhaps some focus on diet and lifestyle have slipped to the side and now all of a sudden they become more important than ever.

[00:11:02] **Hillary Wright:** And you know, maybe this is the time when you Push it up to the top of the heap. I mean, think of how many things make women push their own personal needs to the bottom of the heap up to these years. Sure. Marriage, partnership, work, children. But again, the menopause years, it's the sandwich generation. You know, you may be raising a teenager at the same time that your parents may be aging at the same time that your marriage might be falling apart.

Or you might be getting remarried, or you might be getting promoted. All of these things are big lifestyle shifts that tend to just settle on us at the same time that our estrogen levels are declining, which again makes the research really difficult. The researchers all say it is really difficult to tease out, for example, on the issue of weight gain during menopause transition, really difficult to tease out exactly how much is declining estrogen levels, even though it can contribute, but how much of it is all of these other things that women experience at this phase of life.

[00:11:59] **Ginger Hultin:** Yeah, I wanted to hear more about that because that's one of the major complaints I would say I hear things like, I don't recognize my body anymore, or my clothes are fitting completely different. What's going on here? How do you work through weight gain, weight shifts, metabolic slowing with your patients?

[00:12:16] **Hillary Wright:** So the first thing I think is to appreciate that unless somebody is genetically blessed, they're You know, the average person is likely going to experience some weight change during midlife. For sure, we know that declining levels of estrogen encourage a redistribution of fat from your butt and your thighs to the visceral compartments.

So this is what we often, unfortunately, refer to as belly fat. It's actually not. the fat between your muscles and your skin. It's under our muscles and in and around our liver and our intestines. So we call this visceral fat and we know that there is more of an accumulation of body fat in that spot through the menopause transition and beyond.

And I actually had a conversation with my own GYN about this once. She goes, sometimes I think the most tortured women are the ones that always had a flat

stomach and now it's really wigging them out. And we laughed because neither she nor I were that person. But even women who appear from the outside to look just like they did when they were 30, we've all seen those people.

Guaranteed if you ask those women, they would tell you that their body has changed. Sure. So we have to accept that with age, bodies change with childbearing. bodies change and declining estrogen levels can encourage on average. So I remember reading some research that said prior to the menopause transition women carry about five to eight percent of their total body fat in their visceral compartment and then post-menopausal it's more like 15 to 20 percent.

So it is a real thing but how much of that fat we accrue is related to diet and lifestyle. A major, major contributor being whether or not someone is physically active. So some grace around the topic I think is important because if all we do is insist that we have to look how we looked when we were 35, we have to weigh what we weighed when we were 35, it can just lead to a lifelong just distress in a culture where we're given the impression that if we just try hard enough we can micromanage this thing.

And I don't think that's true. I think bodies change over time, but there is certainly a lot that we can do to mediate how much weight we gain through this transition. And one thing that Liz and I became very clear on very early doing the research for this book is women need to start thinking about this a lot sooner than they do.

A lot sooner. Because oftentimes menopause doesn't even enter the psyche until you're approaching menopause, at which point your body has been in this menopause transition for years. There's a big study called the SWAN study that many papers published from this research group found that starting in the mid 50s, the average woman is gaining about a pound and a half a year until about two years after the last menstrual period.

So this weight gain is starting a lot earlier than actually getting in menopause. And so really 40s. maybe even late 30s to just appreciate that as we age and our body composition changes. Again, there are things that we can do to try to keep our muscle mass intact and all of that, but the calorie margins get tighter than ever.

If your body composition is changing, that means 24 hours a day, you're not burning as many calories as you used to. So learning strategies to be mindful of how much we're eating and what kinds of foods we're eating, you know, other

foods that we're eating, keeping us fuller. for longer or are they just making us hungry all the time?

So many considerations, but what became evident early on is we need to start thinking about this a lot sooner than the average woman does.

[00:15:56] **Ginger Hultin:** Yeah, I want to hear more specifics about the diet and lifestyle aspect. Exercise for sure. But I really just wanted to say how much I appreciate your message of acceptance and understanding what's happening and why I hear a lot of people that say, Oh, I just need to get my body back.

And I'm like, there really is no back because your metabolism and your body has innately shifted and changed. And so I really like to talk to people about relationship to food, body and how we move forward in a positive way with a different body than you had before.

[00:16:27] **Hillary Wright:** Therein lies, for me, the greatest benefit of physical activity, including strength training, which your average woman is not doing enough of. No matter what your weight is, if you are building some muscle mass, if you're feeling more tone, if you're getting up from sitting on the floor a lot easier, like all these little quality things that become so much more fluid when you have some muscle mass.

Regardless of what your weight is, if you've got muscles and strength and flexibility, not only is it great for preventing people from falling and breaking their hip as they get older and all of those kind of practical things, it just helps people to feel better in their own body. But there's only so much you can do.

I mean, you know, I'm five, two and a half. I've had three babies. Like, this body was never going back to where it was before. But I would rather feel strong and like I've got energy and all of the things that come along with regular physical activity, cardio and strength training, stretching, balance, all of those things that make you feel empowered that have nothing to do with weight.

It has to do with how in touch am I with my body from the neck down. But again, I think women often have very unrealistic expectations of what their body should be able to achieve in terms of weight change and, and other things by just messing around with their diet. That is an important piece. We all know it's extremely easy to eat more calories than we need, and that becomes even more easy as we get older.

But the exercise piece is really not negotiable for successful aging. And again, the strength training piece becomes really critical because it is hard to hold on to your muscle mass, but it's the only card we have in our deck to try to preserve that part of our body composition that actually burns more calories 24 hours a day.

[00:18:21] **Ginger Hultin:** I'm excited to share an innovative new product. Orgain's highly anticipated lactose free protein powder, Better Whey, is now available. Unlike animal-based whey from milk, Orgain's Better Whey protein powder is created through a gentle fermentation process inspired by traditional methods, yielding a high-quality protein source.

This results in a lactose free, hormone free, and easier to digest product. It's made with 10 times less water, 10 times fewer greenhouse gas emissions, and requires 1.5 times less energy consumption when compared to traditional whey. It tastes really great, too. Each serving contains 21 grams of high-quality whey protein isolate, 5 grams of branched chain amino acids, and 1.5 times the leucine of traditional whey. To learn more, visit Orgain.com.

Ginger Hultin: I do really want to talk more about physical activity specifically because you mentioned the SWAN study and that study talks about exercise requirements and how most women are not even meeting the minimum. So I'd love to hear how much you suggest and what strength training can do for the body.

[00:19:27] **Hillary Wright:** So it's interesting, the research that I read that speaks the loudest to physical activity trends in women is the CDC's 2020 National Health interview survey.

So periodically the CDC will just try to get a read on lifestyle patterns and habits and dietary issues and all of that. And so their physical activity survey in 2020 found that in women age 18 to 34, 28.7 percent of them were meeting that minimum recommendation for physical activity that we all hear about, which is.

150 minutes of some sort of cardio, walking, jogging, swimming, cycling, and at least two to three episodes of strengthening on nonconsecutive days. Now, those of us who've been dwelling in this world for a long time understand that 150 minutes of activity, if you really want to lose weight, may not be enough.

So that is enough activity to Carry significant health benefits, lower your risk of diabetes, improve your cardiovascular health, good for your brain, good for your bones, not necessarily enough to produce significant weight loss. So this

again is a big challenge for us because we live in a culture where there's so much sitting and that's even more significant since the pandemic when many of us are working from home, which initially seemed to liberate some time to go walk in nature and do all these things we were doing and now it just seems to be. jobs infringing on people's time.

So 18 to 34, 28. 7 percent of women were getting that amount of activity. By the age of 35 to 49, that number was down to 22. 7%. By the age of 50 to 64, that number was 17. 6%. So when we looked at the research that's trying to figure out what are the biggest influences on this weight shift that is commonly occurring during the menopause transition, The sense was that physical activity is likely the biggest influence, more so than aging, more so than declining estrogen.

Those are really small numbers given the entire population, so we tend to just hang our hat on, Oh, it's the declining estrogen, it's the declining estrogen. That is very small numbers of women that are getting even that 150 minutes of physical activity weekly, never mind the absence of strength training that we now realize is so important.

[00:21:58] **Ginger Hultin:** Important because it's the only thing that can counter the declining estrogen levels, ability to hold on to your muscle mass. So doing the strength training twice or three times a week, nonconsecutive days, lower body, upper body, core, really critical. And what if you're like 60, 65, 70, 80? Is it too late?

Can you still be building muscle mass and focusing on this?

[00:22:19] **Hillary Wright:** Oh, yes. Never, never too late. I remember years ago reading a study from Tufts School of Nutrition here in Boston, and they went to a long-term care facility. It was populated with a lot of healthy, functioning people. 80, 90 and 100 year old people.

And they went over there and they did some strength training with these folks and they found that they could build muscle even in those advanced years. So clearly that's not going to be like a competitive sport, but if you're wheelchair bound and now you can use a walker, or you were using a walker and now you can use a cane, it's I don't know about you, but I want to be able to get myself to the bathroom as long as humanly possible.

You need muscles for that kind of thing. So, I always tell my clients to build and maintain muscle, you need three things. You need to eat enough calories

over the day, so that when you consume protein, which is what muscles and all our other body parts and cells are made out of, it's spared from the calorie burning to be set aside and available to build those muscles up.

But to build them up, you have to stress them. And that is the strength training piece. You have to push on your muscles in order for the body to get the message of the, Oh, those are providing a useful function. I better hold on to it. And we've seen more research over the last decade or so looking at, wow, when people go through a period of weight loss, a chunk of the weight that they're losing is muscle.

Talk about something that has the ability to contribute to that kind of rebound yo yo gain it back. You come out of your weight loss experience and you have on average 25% of the weight that you lost was muscle. Right. Well, now your calorie margins are even narrower, so is it surprising that it's easier to gain the weight back?

You know, here in the United States, dieticians all know that we calculate protein in grams per kilogram, and we say women in this transition to beyond need about 0. 8 grams protein per kilogram. In Europe, they recommend 1 to 1. 2 grams of protein per kilogram to account for the fact that we don't use protein as efficiently as we get older.

So we have to pad it a little bit. So, think about it, if you're in this mode of chronic dieting, are you likely eating enough protein? You may not be eating enough calories to protect the protein that you're eating to build your muscles. So, the kind of insistence that, I just have to keep eating less, I just have to keep eating less, it actually puts our muscle mass at risk.

So we need to eat more protein and we need to, like, not be over restrictive dieting serially, because it just chips away at your muscle mass.

[00:24:57] **Ginger Hultin:** A hundred percent. I talk all the time about how just eating less is not a great strategy. It can further slow your metabolism, stress the body, and make you just really hungry.

And I always say your brain is going to hijack your body and ask for carbs because it knows that's the fastest way to get energy and I don't do caloric restriction like that, though you did mention that your calorie needs shift and I'm also hearing a lot about protein. Can you talk more about the dietary advice that you give to women that are going through the menopause transition?

[00:25:27] **Hillary Wright:** You know, it's so interesting about what you just said. I have a very similar soundbite where I say if you over restrict carbs during the day, They're going to come for you at night. Yes. Because the brain does not like overrestricting carbohydrates. No. So the reality is most people eat more than they think they do.

So you and I know, and we sit and talk to a client and we're doing a diet recall and we're trying to get a sense. We know that those are the best we have, but they're full of holes. Humans aren't designed to register every single calorie we've eaten. So I'm a big believer that. If you need to manage your portions, then hunger management is critical.

And it circles back to what we just said. If you're under eating during the day, or over restricting carbohydrates, which are the primary fuel for all the cells in the body, the brain and the nerves in particular. So our central nervous system cells burn twice the glucose of any other tissue in the body.

So they say your brain is 2 percent of your body's weight burns 20 percent of your body's calories. That makes total sense because this is the most important organ. If your brain goes down, the whole ship goes down. So nature, God, whatever you believe in. Made sure to tie your brain function very closely with what's going on with my blood sugar, and women are great dieters until about 4.

30 when their brain is like, I'm so done with your over restriction, and then it takes off. So now we're eating more later in the day, which people may debate whether eating at night affects weight. I personally feel like I've been observing this for 37 years. I noticed early in my career, those who seem to struggle with their weight the most actually didn't seem to eat that much during the day.

But then it would have a tendency to take off. What's not really debatable is insulin sensitivity does follow a circadian curve. And so during this phase of life, because risk of insulin resistance goes up with age, insulin resistance, risk goes up with excess body weight, having a sedentary lifestyle. So all of these things that could concurrently be occurring during the menopause transition.

We want to make sure that we're getting up and starting to nourish our body with a variety of nutritious foods that will take time to digest. So we're all familiar with this balanced plate visual that it's great. It works, but it tells us, yes, try to find some protein. Yes, try to Eat some healthy carbohydrates.

Yes, try to get some fruits and vegetables and nuts and seeds and beans. Get those fiber things in there. Try to eat things that are going to satiate your body

and your brain starting in the morning and try to do it proactively enough so that hopefully you can have dinner and clean the kitchen and be done with it.

But that is really difficult to do if people are over restricting during the day. So I spent a lot of time talking about eating pattern with people. to try to get them thinking about proactively eating throughout the day so they don't end up reactively overeating at night because your brain is just mad at you for all the restriction.

[00:28:31] **Ginger Hultin:** Yeah, a lot of people are really into this intermittent fasting and not eating in the morning until later and I just find over and over that that just pushes everything to the night and causes this huge hunger and some of the best research that I'm familiar with is actually if you're going to do intermittent fasting it's better to front load your day and then not Eat later into the night.

Is that how you practice too?

[00:28:53] **Hillary Wright:** A hundred percent. So I write about insulin resistance in all of my books, particularly in the PCOS book and the prediabetes book, because those are two manifestations of insulin resistance and every cell in our body has a circadian clock. Every cell in our body works differently based on time of day.

That is part related to sun up, sun down, but much more complicated than that. And not changeable. I mean, if you want to read some interesting research, read Frank Sher's research on circadian rhythms from the Brigham and Women's Hospital sleep lab. It's fascinating. research, where a lot of the circadian rhythm research came from, you know, looking at the poor people working third shift, who clearly have more health problems.

And 25 years ago, I was looking for research on time of day eating, like eating pattern and weight control, because I was seeing all these people skipping breakfast, overeating at night. I mean, I can't buy into that because I've watched this for 37 years. I've never seen skipping breakfast to be beneficial for weight control.

And I think there are a lot of studies that show that eating breakfast, particularly starting the day with a good nutritious, filling, satiating breakfast can set the tone for the day. But we know that prior to Thomas Edison and electricity, the sun came up. The sun went down, the campfire went out, and you were not out there hunting and gathering and eating.

You were resting and restoring your body for the next day. I read a study recently that was in people who had diabetes. So this is kind of advanced stage insulin resistance. In this study, they measured peak insulin sensitivity, it was 7 a. m. So we think about this with our ancestors, you know, they didn't lollygag until 9 o'clock.

They had to get up with the sun and get out there and take advantage of the sun up. You know, you had to make good use of the daylight hour. And so it's not surprising to me that perhaps the same carbohydrates that if you ate them in the morning would require less insulin to clear them because your cells are more sensitive to the action of insulin than if you waited until and ate them at night in front of the television.

[00:31:00] **Ginger Hultin:** I want to talk about PCOS. Polycystic ovarian syndrome. And this is a huge area of your expertise. I'd love to hear more about PCOS and fertility and also insulin resistance.

[00:31:12] **Hillary Wright:** So I often start this conversation with a little backstory because years ago I was working for Harvard Vanguard Medical Associates.

It's a large group medical practice in Boston that has Dieticians, primary care, and all kinds of specialties. So this was in the mid 90s. I was trying to conceive my second child, and it wasn't happening. And so I went down the hall, and I said, Something's not right here. I got pregnant in two months with my first child.

And I had a workup, and they did not diagnose me with PCOS. I ended up having a Fortunately, easily tweakable hormone issue called eludial phase defect, where I had my second child and then I had a surprise third one because I clearly made some assumptions about my fertility. But through that process, I developed a relationship with my reproductive endocrinologist and she said to me, After I came back from maternity leave with my third one, she said, I want you to start seeing my women with PCOS.

And I'm the type of person I always say, sure, fine. And then I try to figure out what is it that I just committed to? Because I'd never heard of that. So at that point, I started to look around and read and try to find what was going on. who I could find that had this expertise. So this was January 2000, and I found Martha McKittrick, who I'm still friends with to this day.

She was doing this work in New York City, and I found a book called PCOS, The Hidden Epidemic, written by a physician named Samuel Thatcher, who was kind of the grandfather of PCOS. So these were the early days where we were just starting to realize that this is a condition that behind the curtain, a lot of what's going on is insulin resistance.

So we've known about this thing we call PCOS for over a hundred years. Originally they called it Bearded Lady Syndrome. which is like so harsh. Yeah, not great. And then they called it Stein Leventhal syndrome after these two physicians have started to piece it together. But it's only been since the 1990s that we've come to realize that this is a big chunk of what's going on behind the curtain, causing a lot of the metabolic dysregulation and the hormone imbalances affecting fertility is insulin resistance.

So I thought, We know a lot about insulin resistance because I've been taking care of people with diabetes for a long time. Again, I had to learn myself and then you see a few thousand people and you start to learn from your clients like we all know how much we learn from our patients. But I've come to understand that insulin resistance is like an umbrella condition that a lot of us are preloaded with the genetic tendency for it because it evolved in humans to help us survive droughts and famines.

It's a metabolically conservative state. That if you had this gene when you were a cave girl, it was probably a good gene to have because you'd be among the fittest. You could crank down your metabolic rate and do more with less. But that same genetic tendency, when plunked into, you know, 2024, raises your risk for a number of health problems.

So we all know that we're preloaded with this tendency, some people more than others. But this condition can manifest itself a number of different ways. So there's type 2 diabetes, there's PCOS. There is metabolic syndrome. There is non alcoholic fatty liver disease, which recently underwent a name change that I can't remember what it is.

Metabolic disorder of something something. Which is, by the way, why the advocates for PCOS are really resisting a name change. Because it's taken so long to get awareness of PCOS. polycystic ovary syndrome, which is actually a bad name because it's named after a symptom, not a cause, and you don't even have to have polycystic appearing ovaries.

However, if we pull the rug out from under that name and call it like the leading contender I read, it was metabolic reproductive syndrome. Like it's not going to

come with like a billion dollar ad campaign budget. Right. So this condition, it is an odd name, but it's Behind the scenes with all of this is management of insulin resistance, which we know diet and lifestyle is the primary treatment for.

And so I could draw a lot of parallels from my experience helping people with diabetes and helping my people with PCOS.

[00:35:26] **Ginger Hultin:** Yeah, same. When people come to me with PCOS, the first thing we start to do is work on, like you said, eating on a regular basis and hormonal and blood sugar balance. I'm interested in how you help your patients advocate for themselves to find out if they're insulin resistant.

I want my clients to try and get their hands on an A1C, which is a measure of average blood sugars over the past three months, fasting insulin if we can, fasting glucose. How do you guide people there?

[00:35:52] **Hillary Wright:** In my experience, certainly at Boston IVF, which is the fertility treatment practice, my private practice is associated with, they're very proactive about doing hemoglobin A1Cs and fasting glucose levels.

One of the biggest challenges with how do you diagnose insulin resistance is Your A1c doesn't get elevated and your fasting glucose doesn't jump up until you've been insulin resistant long enough that it's starting to affect your blood glucose. The way I explain it to my clients is insulin resistance in its most advanced form is type 2 diabetes.

But everybody with type 2 diabetes prior to that had prediabetes, with their blood sugars bumping up, but not high enough to call diabetes. But everybody with prediabetes had insulin resistance with no great tests for it, only risk factors. Because When you're in the early days of insulin resistance, if your pancreas secretes insulin and on a continuous monitoring of your glucose levels says, you know what, the sugars aren't going down as fast as I would like.

In the early days, it has this extra reserve capacity to just crank out more insulin to kind of force the cells open and normalize your blood sugar, but that's taxing on your pancreas. So by the time you are diagnosed as pre diabetic, you're your pancreas is showing signs of wear and tear. Sometimes they will test fasting insulin levels.

The challenge with those is it's not a standardized test and people don't agree on what's normal. So like if you go to any lab in the country and get like a metabolic panel liver function test or an A1C, You're going to get the

standardized test. My understanding is insulin tests are not standardized, and so different labs have different normal ranges.

I've seen them grossly elevated, yeah, like no question, very high. Me too, yeah. But I think there are a lot of people who have pre, prediabetes and insulin resistance that that fasting insulin isn't necessarily going to reflect. The Androgen Excess Society recommends women with PCOS get a oral glucose tolerance test every two years because that is the most sensitive way.

I just don't see it happening because it's not practical.

[00:37:58] **Ginger Hultin:** That's a tough test. I also have seen some really sky high fasting insulin levels. I like that lab for that reason, but like you said, it's not standard. It's not commonly used. It can be confusing. So what if you're like a little high and not super high?

If it's super high, it's clear. If it's not, where do you land from there?

[00:38:16] **Hillary Wright:** I mean, I had a conversation with an endocrinologist when I was at Harvard Vanguard, and I asked her about this fasting insulin thing. And she said, well, you could be on the cusp of developing diabetes and have low insulin levels because your pancreas is burning out.

And that always stuck in my head. But the reality is we have plenty of awareness of what the risk factors are. So when my people come to me and I can see that they're A1c and their fasting glucose is normal, I always say, Great, we want to keep it there. But there are a lot of risk factors for insulin resistance even if you're not yet showing the prediabetes like having a higher BMI, having a sedentary lifestyle, having a family history of type 2 diabetes, though you can have no family history of type 2 diabetes and still get it.

I think that that's a big misconception. The negative influences of diet and lifestyle are hitting people at a younger age than they did in previous generations. Your older relatives might not have had diabetes, but if they were born, when you were born, maybe they might have.

[00:39:17] **Ginger Hultin:** And then do you find that, we know there's a genetic factor for diabetes, is there a genetic factor for PCOS?

[00:39:22] **Hillary Wright:** Yes, so PCOS is considered an autosomal dominant condition, which means if one parent has the gene, you have a 50 percent chance of inheriting it. If two parents have the gene, you have a 75

percent chance of inheriting it. So you can get this gene from your father. The gene It may set the stage, but the environment may affect how it expresses itself.

There's a preconception that women with PCOS, they all are obese and they have tons of visceral fat. And yes, it's easier to accrue visceral fat when you have insulin resistance. But I remember reading a study that was done in the UK where they asked women as part of a pre employment physical, do you mind if we screen you for PCOS?

There were thousands in the end. And they found PCOS in all shapes and sizes. So there's a bias even in the medical community that this is what PCOS looks like. It's obesity, it's facial hair and hair growth in places you don't want it, thinning of the hair on the crown of the head, cystic acne. So some people have it all.

Those are the most symptomatic people. They're more likely to end up in a doctor's office, get a diagnosis, and maybe end up in a research study. But sometimes I think the most ignored women with PCOS are the ones with the lean phenotype. There's like four phenotypes of PCOS. I've seen these women, they're losing their hair, they have acne, they have facial hair, but they're lean and so they are often told, oh well you know, you don't have it.

But this is the thing about syndromes is they're diagnoses of exclusion. Diseases, you have to have A, B, and C or you don't have the disease. Syndrome is, we're going to rule out A, B, and C. Look at what's left in the bucket. And in the eyes of an experienced clinician, You know, what do they see? So clearly there are levels of severity of insulin resistance, hormonal imbalances.

In years from now, maybe we'll be calling these all different conditions, but regardless of whether someone is lean or has overweight or obesity, insulin resistance is considered a player in their PCOS, but likely to be more intense in people who have obesity and are overweight and they will likely have more fertility challenges related to that.

[00:41:40] **Ginger Hultin:** And a lot of women are diagnosed when they're trying to get pregnant and focused on fertility and my understanding PCOS is often missed and underdiagnosed, especially earlier on.

[00:41:53] **Hillary Wright:** I'm not a GYN, but I know when women hit puberty, there's a lot of period irregularity and a lot of stuff that can take time for young women's periods to sort of establish themselves.

But I've heard many, many, many, many, many stories of women in their adolescent years, early 20s with irregular periods and kind of all kinds of funky stuff going on that they don't feel is normal. And then they get put on oral contraceptives. And that regulates their period because you're on hormone therapy.

You're on hormone oral contraceptives. I mean, I don't know that I could ever cite a case where somebody's pediatrician or somebody else said, but this is PCOS, so maybe this is changing because there's more awareness now. So let's take advantage of what we think we're seeing here and teach you. about diet and lifestyle and the importance of that.

I don't know that I've ever seen that. What I see much more often is that they stay on oral contraceptives for a very long time and then they go off of them because they want to try to conceive and it's almost like the PCOS hormonal balances come raging out of the cave and that's when you see any women report this like aggressive weight gain over a short period of time and their periods never come back once they come off the pill or they may be.

Very irregular. So birth control pills are a great way to control it. I just wish that we would be making more referrals to dieticians for young women so they're not like up against the clock trying to figure out how to manage the PCOS in the setting of trying to conceive. Because I live in Massachusetts.

We have the oldest first time mothers in America. So if you find out you have PCOS and now you have to wrangle with that while you're watching the clock tick on your. Reproductive years, it's pretty stressful.

[00:43:43] **Ginger Hultin:** And I just can't overemphasize enough the referrals to dietitians so that we can help sooner.

And one thing I definitely want to go over is nutrition and lifestyle interventions for PCOS. What are like your top three that you absolutely need to focus on?

[00:44:00] **Hillary Wright:** There's no one diet prescribed for women with PCOS, but dietary patterns that reflect Plant forward eating like a Mediterranean diet, a DASH type diet, lower in highly processed foods, lower in red meat, higher in fruits, vegetables, whole grains, nuts, seeds, beans, fiber.

I'm like in awe of what we're learning about the microbiome and how important it is to optimizing health. So there's like surviving and thriving. Having a healthy microbiome is critical for thriving. And those microbes eat fiber, so

anything we can do to transition people to a diet lower in saturated fat, lower in highly processed foods, and higher in plant foods is helpful.

I think it does benefit women, as we would with other people with insulin resistance, to just try to, you know, Spread those carbohydrates out over the day in that kind of balanced plate, kind of visual. A is a means of fueling your brain so that your brain doesn't get mad at you and come after you at night where you're going to eat a lot of carbohydrates at a time of day.

There's no mystery that when you're starved, your brain's not craving carrots and chicken. There's lots of hunger scales out there. I like the really simple one, zero to ten. Zero to two, you're not hungry because you just ate something that's going to take your body some time to digest down. So not like a neutral grain bar, but like a balanced plate, some protein, some healthy carbs, some fruits, vegetables, something that's going to take some time to break down, keep you feeling fuller longer.

Including protein is really helpful at these meals because protein is satiating. It slows down digestion, makes you feel more satiated by what you eat. But if 0 2 is not hungry and 8 10 is starved, Starved is not a psychological state. Starved is, your blood sugar's low, your hunger hormones are high, your primitive cave girl is so mad at you, she's throwing you in the trunk, she's grabbing the steering wheel, and she knows what she wants.

She wants carbs. Whatever's fastest, quickest, like most delicious. And again, when you're that hungry, it's all central nervous system symptoms. Fatigue, difficulty focusing, hangry. Everybody on the planet knows what hangry is. Some people get a headache. People get shaky. I see this in women with PCOS a lot.

They get like shaky, they're so low blood sugary. So it's not like dangerous low blood sugar, but it's very uncomfortable and it makes the primitive cave girl throw you in the trunk and she's going after Your preferred carbohydrate. Liz and I talk about this all the time. She loves sugar. I'm not a sweet person, but if I'm like that and you gave me a bag of like vinegar and sea salt potato chips, it's over.

So we have to accept that if we wait until we're that hungry to eat, we're not going to make great choices. Not because we're weak losers who lack willpower. Willpower, we have very limited supply of that. It never favored human survival. So if we try to eat when we're like a five or a six is the best we can do.

That's proactively eating. And so, again, that's why I can't buy into this 8 16 fasting. I think it's impossible to do long term. I'm very committed to the idea of people starting to eat earlier in the day and proactively eating. And I've seen people try to do the 8 16 and they start eating breakfast 7 in the morning and they stop eating at 3.

Well, what happens when you get sick of not eating dinner with your family? Right. It just doesn't work. So I think eating pattern matters. Physical activity is critical. It's stress management. It's including that strength training. Insulin is only supposed to have to unlock our cells and then inside our cells are supposed to be glucose transporter proteins.

that are supposed to jump into action and help clear the sugar out of the blood. The trigger for the production of those proteins is physical activity. You know, that's why studies tell us that people with pre diabetes who have obesity, if they start exercising, even if they don't lose any weight, they're less likely to develop diabetes.

We know that muscles are big glucose sponges. We know that contracting muscles can pull glucose out of your blood without even needing insulin. It's proactive, plant forward eating, regular physical activity. And then, stress management. Women with PCOS are higher risk for disordered eating, a lot of trauma around weight conversations with healthcare professionals, a lot of stress eating.

I think a lot of the eating that they often describe as binge eating, not that it can't be binge eating disorder, it can be, but a lot of it is low blood sugar. So tending to your mental health is so important as well.

[00:48:31] **Ginger Hultin:** I appreciate that holistic approach and I'd love to take that into our next conversation, which is all things cancer and nutrition.

Hillary Wright: That's my passion.

Ginger Hultin: I can't wait to talk to you about it.

Hillary Wright: Sounds great.

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