Introduction to Cynthia Thurlow and the Breast Cancer Connection

I am so delighted for our next guest because this is a conversation that is so important and it's not only important for the breast cancer population, it's important for everyone.

And if we knew about this conversation and this topic before so many people wouldn't even be in the position that they are in terms of breast cancer. So today we're talking about.

We're talking with Cynthia Thurlow She is a nurse practitioner. She is a celebrated author, the author of Intermittent Fasting Transformation. She is a viral TEDx talker.

I think she gave TED talks in 2018 and 2019 that went viral and her focus around intermittent fasting is for the purposes of really driving health, finding hormone balance.

And we know that in the area of cancer, we certainly have an epidemic of obesity in this country. And unfortunately, in countries around the world that start to live like Americans, they're starting to have an obesity crisis themselves.

And obesity is so strongly tied to breast cancer that there's almost a direct relationship. So I couldn't think of a better person to have on here to talk about that relationship, what's happening, what's happening physiologically in our bodies that are leading us to this pro-inflammatory states.

And, you know, I really want to dove down into what is insulin and where does that play a role. So, Cynthia, welcome. I'm so happy to have you. Absolutely.

And I think you bring up such good points about how most of us are not making the connections that insulin resistance is at the basis of not just metabolic health disorders, but also is making us more susceptible to specific types of cancers and in particular for breast cancer.

And for me, my whole background as a nurse practitioner was an ER medicine and cardiology, and we used to talk about heart disease and diabetes and high blood pressure, and we weren't making those connections between this drive of insulin resistance and how our population over the past 25 years has just gotten increasingly less metabolically healthy.

And that is giving rise to this constellation of diagnoses that are largely preventable. And I want to emphasize largely it doesn't, and not as perhaps in every instance, but lifestyle diseases are making our population sicker and more chronically disease.

Yeah. So you started to touch on a phrase that I think it's so important for people to understand. So what is metabolic health? Because I know that very, very few Americans are metabolically healthy and the vast majority of them don't know it.

In fact, I would say that nearly everyone who comes to me with a diagnosis of breast cancer says I am healthy, but I have breast cancer. And if those metabolic health statistics statistics are correct, they're not healthy.

Right. So talk to us about what is metabolic health and how do you know if you're metabolically healthy now. So we know pre-pandemic and 2018 the USC School of Chapel Hill School of Chapel Hill School of Public Health excuse me, determined at that time that 88.2% of Americans were not metabolically healthy.

And that number seems staggering. Three years into the pandemic, we know that it's 92 to 93% of Americans are not metabolically healthy. And how do we define metabolic health?

Now we go back to kind of the construct of metabolic syndrome.

Defining Metabolic Health and Insulin Resistance

We're talking about waist circumference, we're talking about blood pressure, we're talking about lipids, specifically triglycerides and HDL. We're talking about fasting, glucose.

And to give everyone a construct, there are there are gender parameters. So as an example, waist circumference for women, greater than 35 inches for men greater than 45 inches.

When we're talking specifically about blood pressure, if your blood pressure, even with medication, is greater than 130 over 85, that is a concern. We recognize that triglycerides, you know, they they meaning those that create the the the diagnostic criteria, they talk about 150 I tell everyone, your triglycerides should be under 75, you know, fasting glucose.

You know, a million years ago when I was finishing up my nurse practitioner program, we were talking about blood sugars of 140. It's now under 100. And there's actually really good evidence to demonstrate a blood sugar between 90 and 99, which many of us celebrate and say, Good for you, that's good.

No, it is not. We know that it increases your rate of developing diabetes by 30%. So understanding that these biomarkers, blood pressure, blood glucose, triglycerides, HDL, your waist circumference, that's a good starting point to get a sense of where your metabolic health is failing you or where you have areas of improvement.

I would add to that that a fasting insulin is one of the first biomarkers that will dysregulate in response to growing insulin resistance. Now, for some reason, this is considered to be an unusual test.

It is very easy. It is covered by insurance. I remind people that ideally we want to between 2 to 5 milligrams per deciliter and I see women routinely that are weight loss resistant and their numbers are ten, 15, 20.

I've seen numbers as high as 30 way before that blood glucose really starts to look wildly abnormal. So helping people understand there's objective criteria for defining metabolic health.

But I would also kind of loop into that. When we're talking about metabolic health, we're talking about sleep quality, we're talking about movement. We as a society don't value sleep.

And I say as a kind of a generality, we don't value the concept of movement. So many of us are sedentary from the moment we get up in the morning to the moment we go to bed.

Another thing that I really tie in to that is meal frequency. We've been conditioned to believe that we need to eat frequently to quote unquote stock our metabolism, that we need to be eating every 2 to 3 hours.

And that meal frequency point for me, Jenn, is one of the ones that sticks out the most that is really making us sick as a society. You know, there was a study done by Satchin Panda a few years ago and it was looking at meal frequency done in an app.

So very easy and accessible for patients. Average person was eating 6 to 10 times a day. And each time you eat and I don't know if viewers understand that each time we eat in response to whether it's fat, protein or carbohydrates, our body will well, you know, glucose will go up in our bloodstream and our body will secrete a certain amount of insulin to bring our blood sugar back down.

You know, obviously, fat has the most negligible impact on blood sugar, followed by protein, followed by carbohydrates, which is probably not a surprise.

But most of us are eating the wrong macros or eating too much carbohydrate, largely the processed, hyper palatable stuff that makes it irresistible to eat makes it hard to stop.

You know, we eat too little protein and we're eating the wrong types of fats. And I think that is the other piece of that. Along with chronic stress, I think the pandemic has really demonstrated for us the net impact on metabolic health in terms of having chronically elevated high cortisol levels of our cortisol is high.

Our insulin will correspondingly go up in response to an elevated blood sugar. So at a lot of different levels, our modern day lifestyles are setting up the perfect storm for poor metabolic health.

And after 25 years of working with patients, it seems to be getting worse and not better. And that obviously as a clinician is something that I am passionate about, helping people understand that our lifestyle as medicine needs to come at the forefront.

Yeah, I couldn't agree more and there's a lot of unlearning that we need to do. And as I was thinking about this interview today, there were so many mics that I wanted you to dispel.

You started to touch on one of them, which is, you know, we have been told for years and years and years that small, frequent meals are the way to go.

So can you expand on what's happening when you have small frequent meals and why it is actually counterproductive for your metabolism and for your health?

Yeah, absolutely. So when we're eating frequently, so whether it's every 2 hours, every 3 hours, the average person is consuming a very low protein, high carbohydrate meal.

And so what ends up happening is that each time you eat, your body is trying to process the food that you've consumed. And in response, if you're eating a predominantly low protein, high carb meal, your glucose goes up and in response your insulin goes up.

And insulin, unfortunately, gets a terrible rap. Everyone thinks insulin is bad and cortisol is bad. Insulin is a wonderful hormone when it's functioning optimally, but when our body is constantly deluged by food intake, we have higher blood sugars, we have higher insulin levels.

When insulin levels remain elevated, our body has no ability to access stored fat as a fuel source. Our body is just trying to process off. It's almost like a gas tank of gas.

My dad loves to top off his gas tank when he gets a quarter quarter of a tank down and it's the same kind of concept. We're never able to work through the reserves of stored energy that we have because our body is trying desperately to process this constant influx of food.

So important thing to understand is that if you eat, let's say you eat breakfast at 8 a.m. and you have protein and some healthy fats and maybe add a little bit of carbohydrate, your blood sugar is going to have a much more nominal response to that meal versus if you sit down and have a big bowl of oatmeal or you eat cereal or granola or any of these kind of hyper processed carbohydrate laden meals without the buffer of having some some protein to help buffer that blood sugar response.

Why Frequent Meals and Snacking Backfire

So what I advocate for is less frequent meals and for some people, that might be that they eat three meals a day, or they may too, because it allows our bodies in between those meals to to be able to not only start digesting the food, but also acclimate that blood sugar so that glucose is going to go down in response to the insulin being secreted, insulin will come back down and then we're actually able to in between meals if necessary, like if we're very physically active and our body needs to pull on some of these stored sources of your substrates, which is like stored glycogen or fatty acids or even ketones, our body can effectively do that, but most of us just never allow our bodies to be able to function optimally because we're just constantly topping off that tank.

Think about it when you go on vacation, I know when I go on vacation, I'm normally not as conscientious about

eating winter. Yes. Yeah. And so I tell my kids I'm surprised.

Like I have days where I'm like, I really don't need that meal. I'm actually going to do I'm not I'm going to skip lunch. I'll have breakfast with everyone.

I'll skip lunch, I'll have dinner because my body's just not acclimated to eating that large of a bolus. The food at that frequency. Yeah. So it's something that can be super easy for people to do is just to stop snacking like we don't, we should not need to snack snacking.

And I even say even with children snacking is a sign if you're really genuinely hungry in between a meal, it is a sign that you put your macros together in the wrong format.

Macros are protein, fat and carbs and I encourage people to eat more protein, eat the right types of fats. And depending on how physically active you are and what life stage you're in, you know, moderating the carbohydrate intake, which I know for many people can be very triggering.

But I find that there's that satiety point. You know, if you sit down and have a bowl of oatmeal, you might not be as satiated as you are when you have a piece of chicken or, you know, leftovers from the night before a piece of steak, or you sit down and have eggs and bacon or eggs.

The other thing is it's not driving. So oatmeal is kind of driving that hunger hormone and that those satiation centers differently than you're going to get from a protein source or, you know, people there aren't a lot of people that are bingeing on chicken.

Right. And actually, it's very hard to do that. You know, those stretch receptors in your stomach will remind you, like I tell people, you know, if I have six eggs, I am very full.

There is no way I can put one more bit of food in my body or a very large steak. And you're right to your point, it's very satiating, especially if you've got a fatty piece of meat or fatty piece of fish with a sizable enough portion it is going to stimulate that connection between leptin and ghrelin, like those satiety centers or mat versus to your point when you sit down and have a bowl of oatmeal.

If you don't have a bowl of granola, you sit down and have a really sugary, you know, I'm going to just call it a yogurt drink. And there are plenty of those out there that have got 40 grams of sugar in them.

And you wonder why you're hungry an hour later. And it's because there's just way too much sugar for your body to promise to process properly and hit those satiety centers.

It's just really very, very problematic. The other thing that comes along with a sugar bolus that I think most people don't recognize, and it's very important, especially in anyone anywhere along their breast cancer journey, is that it does have an effect on your immune system, albeit transient, if you're giving yourself sugar bolus again and again and again during the day, that transient immunosuppression is meaningful.

And so, you know what? What essentially happens is you can have all your systems on at once. So if your immune system is on its own because your digestive system is off, but if your digestive system is constantly on, then that is not a time for your immune super surveillance.

And people who do this chronically who are eating frequently, who are eating carbohydrate rich diets that are converted to sugar. So it doesn't matter if you're eating sugar or you're having honey or you're eating, you know, wheat bread.

That is all seen as the same thing in your body. It's seen as sugar. And so if you're doing this kind of constant constantly, then your body is not able to respond to the other offenders.

And the truth is that, you know, we all make cancer cells, every one of us from young to old, and everyone in

between we make cancer cells. So if you if if your immune system is not intact because an intact immune system can defend against cancer, but if your immune system is not intact and it's not intact because, you know, you're you're on the wrong kind of macros or you have a sugar laden diet or, you know, if or you're eating really frequently that you're kind of taking your immune system out of the picture.

And that's significant. I mean, the other thing that I would add that I see a lot of women struggling with because, you know, maybe in their twenties and thirties, people drink socially.

What I see for a lot of women in their forties, fifties and beyond is that alcohol really impacts their sleep negatively. I think many people, you know, in their minds, they may feel like they're 18, but chronologically they're no longer 18.

And so, you know, the the mommy drinking culture, I think, can certainly be can be an issue. And it's interesting, I had a a lovely clinician. It was on the podcast a few months ago, and she was saying, do you know that if you drink alcohol and you're on HRT, so hormone replacement therapy will actually elevate your estrogen levels?

I think she said 4 to 5 hours afterwards. Yeah. So all I could think of was, oh, my goodness. So we talk about there's interplay between different markers, but also understanding that alcohol may not be in our best interest.

And I don't know how you feel about it, but I started to speak out more openly. Just helping people understand like this may not be serving you well. Like, yeah, really examining your relationship and whether or not it's helping you or hurting you.

Yeah. So, I mean, the American Cancer Society says that there's no safe amount of alcohol for women. And I tend to be like to the right of where the American Cancer Society recommends, because, you know, I probably hold people to a higher standard since their their view of cancer care is so limited.

And so, you know, as certainly anyone who is actively canceling, I think that there's no role for alcohol there. If you are far out, if you're in maintenance, if you've kind of gotten everything else into balance and you want to have an occasional drink that you know, that I think that that's okay.

But we need to take it in the context of where are you on your cancer journey? Because if you're early on or active in your cancer journey, it's very, very dangerous.

Yeah, I can imagine. So you touched on something. You used the B word, which is breakfast and and so I want to talk about several things there. I want to talk about I get questions all the time.

What do you mean by having a savory breakfast? I want to talk about the statement of breakfast is the most important meal of the day and where that came from.

And I want to talk about what you mean by breakfast, because I think most people think you mean a morning meal. Yeah, yeah, yeah. So we know the concept of breakfast came from good ole Kellogg's.

So the processed food industry really brought that to the forefront. And they initially unbelievably, they have this construct of cornflakes because they they well, how shall I say this?

My understanding is that they wanted to discourage masturbation. And so they thought that if they encouraged people to consume these processed cornflakes, that it would be less likely they would have this tendency less.

So it gives you a sense of like the construct of their, their thought process. But when we're talking about brain. Actually never heard of that before. Yes.

It's a real thing. I mean, it's a disturbingly real thing that that was the impetus for the creation of cornflakes. But we're talking about breaking our fast.

Breakfast, Fasting, and Morning Blood Sugar

The processed food industry has convinced us that it needs to be Legos and it needs Legos needs to be eggos and it needs to be bagels and it needs to be muffins and it needs to be these kind of hyper processed, hyper palatable foods that are going to skyrocket our blood sugar and increase our insulin and make us sleepy and not be the good start to the day along with a big glass of orange juice, which is really unpleasant.

But when we're talking about differentiating between a sweet breaking your fast versus a savory, breaking your fast, big distinction or a savory breaking your fast is going to be something that's going to stabilize your blood sugar.

Again, focusing in on protein, healthy fats, if that's appropriate, the right types of carbs, like I don't want anyone to take away that. You can't have a piece of fruit.

But, you know, a half a cup of berries is very different than having a bagel. Certainly if you have bacon and eggs or sausage and eggs or you have leftovers from the night before, breaking your fast can occur any time.

You know, breaking your fast could be 10 a.m.. It could be 12 p.m., it could be 2 p.m.. It really depends on you and your lifestyle. And we know that based on research, not eating, the first 2 hours we wake up in the morning is really important and very, very important.

So what's. Happening there? What's the magic there? Because I know so many people that are like waking up and going to the refrigerator. Yeah, well, we know that it's important for us in terms of this cortisol awakening response to get up, get moving, get some sunlight on a retina, kind of reminding our body, suppress the melatonin, get the cortisol going.

But we know that we in terms of a blood sugar response, in terms of glucose regulation, we are better with hydration, with water, like water's great having bitter coffee, bitter tea.

I know we're so sensitized to sweets when I say that people are like, what? And they're like bitter based compounds. These polyphenols are information for our body.

It's a way of telling our bodies like it's time to boost fat oxidation so properly, kind of breaking down some fatty acids and just to get moving in the morning, that is far more effective.

And so looking at the research in terms of chronobiology, so the circadian rhythm of cortisol distribution throughout the day, understanding that having a big food bolus in the morning, that's not going to benefit your cortisol awakening response.

It is not going to benefit your energy levels or your cognition. And so I just remind people, like hydration is great and movement is great, light exposure is great.

Those first 2 hours the morning really protecting them. I mean, obviously, if you get up in the morning like my teenagers, they're starving in the morning, they're growing, they're in this massive anabolic phase.

The rest of us hopefully where you're not in a massive anabolic phase, we should be in kind of a maintenance phase at this stage of our lives. And so I remind everyone to just consider, you know, maybe if you do things differently, delay eating until you've gotten through that at least the first hour, but preferentially 2 hours, if you get up at six, don't eat before 8 a.m.

And for a lot of people, they realize that they have this counter regulatory hormones that actually suppress hunger in the morning. A lot of us are just not hungry.

And I'm not a believer in eating for the sake of eating. If you're not hungry, don't force yourself to eat. But, you know, things like growth hormone and norepinephrine, I mean, they're designed these counter regulatory hormones to suppress hunger so that we get up and we're productive.

And if you think about it, years ago when people didn't live in air conditioned and heated homes, when people were probably living in circumstances or maybe there were still predators, that was to their advantage to get them to get moving so they could seek shelter.

They could look for breakfast before the advent of grocery stores and having food that was available. Uber eats and all these other things that make eating pretty easy.

But that's that's likely where that stems from. But the research certainly suggests delaying eating in the morning is actually beneficial. And we know from an evolutionary standpoint, like we are designed to perform as well in a fasted state as we are in a Fed state.

I mean, it's not like you could come out of the cave in the morning and see the saber tooth tiger and say, Can you just give me a minute because I haven't had my breakfast yet.

Right, right. Like maybe we are designed to perform, you know, optimally either way. Yes. So I hear so many people say because I include fasting in all of my protocols.

And I do believe that there that everyone is capable of fasting because, you know, even when you think about it, when I'm when a baby gets to be six weeks old, they're fasting through the night.

They're sleeping through the night. Like once they become neurologically mature enough, even a baby can get through an entire night without eating. But there are so many people that say that they struggle with fasting.

So what do you think's going on there? Well, I think there's there are a couple of things. First of all, I think it's a behavioral thing. We've been conditioned that we go to the grocery store.

We go get gas, we travel, there's food everywhere. So we are just inundated by cues in our environment that we're supposed to be eating all the time. So I think some of it's kind of a psychological piece, but I also think for the vast majority of us, we're not we're not metabolically efficient.

So it may feel bad when you eat it at 8 a.m. to make it to 12 because you weren't giving your body the proper fuel that it needs to go three or 4 hours without eating.

And your body's not efficient at drawing upon stored energy. And let me be clear, if you're thin, you have plenty of stored energy, plenty of stored fat in your body.

But if your body can't access, it's almost like a locked refrigerator. Your body can't access the stored fuel. And so this explains a lot of the symptoms people experience.

When they're not metabolically efficient, they will get angry, they may get shaky, they may get lightheaded, they may have energy drops and they get sleepy.

And that is in response. And oftentimes, weight loss resistant. They're wondering, like what am I doing wrong? I'm doing everything my my doctor or my nurse practitioner.

Right. Or is telling me to do so. I think that definitely contributes. And I know when I have someone that is eating a standard American diet and is not very physically active, we have to do things really slowly because I think trying to convince someone that's eating six plus times a day to go from that to I'm going to tell you now to fast for 16 hours is terrifying.

Yeah. Because people really do perceive that they're starving. And I remind them that if we were not able to go longer periods without food, we would not be here from an evolutionary perspective. And.

Especially women in particular. So I think it really comes down to there's a bit of mindset, there's some physiology that goes on that can sometimes be uncomfortable for people.

And I and I always remind them, like, we're going to take it slowly. We don't go from, you know, crawling to sprinting. I mean, there is kind of a continuum.

But I think for a lot of people, it's it's that and it's also these limiting beliefs that we tell ourselves that, you know, this is going to be uncomfortable, it's going to be unpleasant.

I'm not going to like it. And so finding that reframe and finding that reset for our attitude, if you will. Yeah, can really be very, very important. It's like we set the tone for our patients.

So if we're encouraging, if we're supportive, they're going to have greater success than if we just shove them out the door and tell them, Oh, just go figure it out.

Yeah. So for those grazers, right? For those people that and, you know, the pandemic didn't help with the whole grazing thing because most people were.

But, you know, a stone's throw away from their kitchen all the time. Yeah. So for those grazers, how do you start with them? Like, how how do you how do you create a roadmap for those?

Yeah, I have a pretty step wise approach and it really starts with stop snacking. So the grazers struggle the most. Maybe if you're eating a couple of meals and then you're having a little snack in between.

But I encourage them to understand, I want you to trust the process. So I remind them, like when you sit down, I need a meal, I want you to eat no less than 30 grams of protein.

How to Start Fasting and Support Grazers

Now that blows everyone's minds because that might be what they eat the entire day. And I just remind them that if you eat enough protein, you are going to be satiated.

You will not be hungry in between your meals. So we start with targeting the meals, making sure we have at least 30 grams of protein and then really discouraging the snacking.

Just saying like snacking is not serving you. Snacking is contributing to this blood sugar dysregulation and these elevated insulin levels. And if I have a lab value, I just remind them I'm like, your fasting insulin is 15.

That is that is 60% higher than I want it to be. So we have work to do and so really encouraging them. Like in between your meals you can have plenty of water and electrolytes and bitter tea.

You can have decaffeinated bitter tea or black coffee and that freaks everybody out. And I just remind me you can add cinnamon, which will help with insulin sensitivity.

You can add high quality salt like Redman's, and that will change the flavor profile, make it a little less bitter, but it's not going to break it fast.

So really starting with those two things, no snacking, 30 grams of protein with each meal. I find that once they realize that they really aren't hungry, then we start pushing the protein labor up a bit.

We'll start with 40 grams and then reminding them like we're ultimately working up to 100 grams a day. That's kind of what we're working towards. And I find for people that are very quantitative focused, they're like, okay, I'm going to write these things down.

I'm going to measure out my protein. It gives them something to think about. Then they're like, Okay, if I can do 30 grams of protein three times a day, and I feel really good and I'm sleeping really well and my blood sugars are better, I'm sure you probably use Glucometer and CGM with your patients.

Yeah, but I do want to I do want to talk to you about that because I don't I don't know that that's universally happening. So can you talk about the continuous glucose monitors, who you're using them on, what you're looking for and you know how people can really optimize that technology?

Yeah. So continuous glucose monitors are little monitors that are put into interstitial fluid in your arm. So it's not in a capillary bed, it's not in your in your venous system.

And between that and if it doesn't fit your budget, looking at a glucometer, I want to know what your fasting blood sugar is when you wake up in the morning, because that is very important information.

Remember what I said earlier, if it's between 1999, you have a 30% greater risk of developing diabetes. That's significant. So if you wake up in your blood sugar 78, you're in a good position and you.

Feel so you want at somewhere between 70 to 90. Is that optimal where you're. Yeah, and it's interesting because I was looking at Robert Lustig, I'm sure you're familiar with his work.

And of course, Robert Lustig once was talking about how he likes to see at mid-eighties. And he's a pediatric endocrinologist, but he gets very stringent.

He's like 90 is a dangerous zone. So 90 to 99 is definitely not, you know, not out of the woods. So understanding where you are when you wake up in the morning, I do like people to know what is your blood sugar when you get hungry?

Marty Kendall calls this the trigger point. And I think this is really important because this can help you distinguish between true intrinsic hunger versus I'm just bored, I'm stressed, I'm looking for food.

I think I'm hungry, but I'm not. And the reason why this distinction is important is that if your blood sugar at let's say when you when you're fasted, it's 78 and when you get hungry, it's between 78 and high eighties.

If you feel hungry and you check your blood sugar and your blood sugar is high, then you know it's not true. Intrinsic hunger. There's something else at play here.

So I like to monitor the before the meal. When you get hungry, I like to look at your postprandial. So after your meal, what are your numbers? I don't like to see a baseline blood sugar to go more than 25 points up after a meal.

Because if your blood sugar goes up 40 points, 50 points, it is not benign. That is a sign you likely have had too much carbohydrate and a rough kind of goal to look for is 30 grams of carbohydrate.

That's not a lot. And most of my patients are perimenopausal menopausal women. And we know this is a time when women become increasingly less insulin sensitive.

So that's why we kind of put that containment. I say 30 grams of protein if you're going to have carbohydrates, no more than 30 grams of carbs and make sure it's from like beans or lentils or like non-starchy vegetables don't load up with rice and pasta and bread.

That's something that's some heavily fiber laden kind of car. Yeah. So I like to I like to monitor that. You know, the postprandial. So after the meal I like to know like what's your average when you sleep, you know, if you have a continuous glucose monitor you can get those averages.

Obviously if you're using a common or you have to stick yourself each time. I like to know what what is your response to certain foods? For me personally, if I eat a plantain, it doesn't matter how I prepare it or what I do with it.

My blood sugar goes up to 150. Normally I don't have that much glucose excursion. I like to know what is stress due to your blood sugar? What is exercise due to your blood pressure?

Blood sugar? What does the time? If you're still getting a menstrual cycle, what is your blood sugar like? We know that during the luteal phase, when we have more circulating progesterone, that tends to be when we're less insulin sensitive versus the follicular phase when we tend to be more insulin sorry, insulin resistant during the progesterone luteal phase, insulin sensitive during the follicular phase.

And so being able to see those variations and again, if you're perimenopause, the 10 to 15 years preceding menopause or menopause, 12 months out of menstrual cycle, you may not have as much wiggle room.

It's an unfortunate fact, and there's lots of things that contribute to insulin resistance for women at that stage of life. But I like to know all the things I always say.

Like I like my patients to keep a journal so that I can look at it so I know what's going on or you know, I use the freestyle Libra, so they'll upload information for me that I can look at.

But I think those kinds of metrics are really helpful because many of us don't feel badly when our blood sugar is high, some of us get sweaty, some of us get hot flashes, but not every patient gets symptomatic.

And that's where it can be so sneaky. That's why so many people are shocked. Like I have thin women in their forties that are like, How could I be insulin resistance? Yeah.

And I'm like, Well, there's a lot of things physiologically that are changing in our bodies, and so it makes it much more easy. It happens much more easily, even if you're doing all the right things.

And so and that's where it is. The closer you come to menopause, the less insulin sensitive you're going to be. Yeah. And that's I think that's something that I certainly didn't learn in school.

I think that there's this lack of information about the middle age, perimenopause, menopausal years for women, not at all medical education, there's just not focus on it.

And so I would say if clinicians aren't prepared for their own perimenopause menopause journey, then you better believe the patients aren't prepared for it either.

And so think that that, you know, to me, a CGM or a glucometer is one of the most valuable pieces of information. You can have to be able to make better choices.

Like, I know I make better choices when I can look like, okay, well, that dessert didn't serve me. Yeah.

Using Glucose Monitoring to Personalize Nutrition

Or that we all so we. Really only learn by what we measure. Correct? Right. And we only correct by what we measure. And otherwise it's a guessing game.

And as you said, there are so many people that are completely unaware that they don't have metabolic flexibility, that they don't have good metabolic health, they don't have good insulin sensitivity.

And for so many people, they can be asymptomatic. And it's not just people who are overweight, it's people who are seemingly normal weight that are that are at the same time struggling.

So I think it's easy for all of us to make a connection when we're overweight. But I know in my in my situation, I was not overweight. So I was kind of rocked to my core that I was not metabolically healthy because I just I didn't understand how it could be possible when I was not overweight, you know?

And I mean, here I am, five, six, wearing a size two, like, how could I not be metabolically healthy now? But I can tell you what happens. And that's I mean, that's the cruel irony is we make assumptions that if your body composition is X, then there's no way that you are insulin resistant.

And I see so many I see countless examples. I see little skinny women in the plotting studio I go to and they'll talk to me about what their fasting blood sugars are.

And I'm like, You need to monitor that. Like, that's not like people celebrate, Oh, you're less than a hundred. No, you don't want to have fasting glucose of 95.

Like if that's your norm, that's your average, then you've got work to do, whether it's walking after meals, doing strength, training, intermittent fasting.

You know, I think for a lot of people, they just don't recognize that the habits that they were doing in their teens, twenties and thirties are no longer serving them at this point.

Yeah. And you know, the other thing that we're not taking into account, which is so tied to metabolic health and insulin balance, is the effect that stress and cortisol have on this whole system.

Because the truth is that if you think you're running away from a tiger, your body is less concerned about metabolic health because it's not necessarily worried about, you know, protecting your heart for the long run.

If take it away from the tiger. Yeah. And unfortunately, it's it's kind of our modern day lifestyles where it's so hedonistic, we have access to everything at any time of the day.

You know, years ago, I'm going to well, I'll probably date myself, but, you know, the TV went off at 12:00 and there was you know, there was no cable TV.

And you would wait to you know, they were one static there. Static available. Right. And so now my kids will talk about Ubereats, which just makes me cringe, but I remind them I'm like, guys, there's actually a reason why we shouldn't have things so easily accessible.

You know, whether it's the stress of being separated from loved ones during the pandemic, whether it's stress about your job or relationship or stress about money or something as benign as maybe you're just stressed about, you know, you're just an anxious person to begin with.

But that chronic I. Mean, there's, there's there's these seemingly perfected lives that people are seeing on social media that are having horrible impact on people who are just like, you know, trying to get by day to day and even though we know I mean, you and I live life in in the public eye and our lives are not perfect no matter how much our Instagram accounts look great.

Like, no one's life is perfect. But but people have these seemingly perfect lives and and it's terribly stressful for the observer. Right. And I remind people all the time, like, if you follow someone on social media that makes you feel badly about yourself, unfollow them like that is been my general rule for a long time.

And when I get on, when I get on social media, there's a lot of there's a lot of puppies and a lot of animals and like funny things because that's what brings me joy.

But if I'm following someone and maybe I have to follow them, you know, just to be politically correct, but I will mute them like I can't see their stuff anymore.

It doesn't bother me. But, you know, from my perspective, life is too short to feel stress when you get on social media or to feel less than I agree. I have I have unfollowed all of the haters and the posers and the bears and my bad and the people that tell me that, you know, I'm crazy and the diet doesn't matter and you know I'm dangerous because I don't want people radiated, you know, so and you have to and my, my feed is filled with dance videos and like, pictures of people petting whales, you know?

I mean, it has to be the things that bring you joy it. Yeah absolute I think of him as like I was a vet. So for me watching animals I'm like oh this is great.

I'm so great. I love all the like lab videos and golden videos and you know, the one putting the chicken in their mouth is so cute. Okay. So I want to switch gears a little bit.

I want to talk about order of food consumption, because there is a lot of talk about, you know, you're putting your plate together. Does it matter what order you eat your food? And.

Well, it's interesting. You know, glucose status certainly has had has caused me to think differently about food order. So, you know, if you travel overseas and my mom's Italian and so you always had salads, you always had fiber before you ate a meal.

That was like standard in my house and when I interviewed her for the podcast, I was like, you know, thank you for making kind of breaking things down in a way that it makes it very accessible for.

Everyone causes me to think. But when I when I'm thinking about meals, it's always protein focused. And then as an example, if my if I'm having a rib eye or a piece of salmon, I don't need more fat in my meal.

I just added some healthy, usually non-starchy vegetables. So for me, protein is going to help you keep your blood sugar stable. It's going to help with satiety.

I find that I you know, most of my patients make better food choices when they're protein centric. Now, if someone has terrible diabetes if someone is morbidly overweight, then we probably aren't doing very heavy protein, but more protein.

So I always say like giving someone the grace to understand that as they're transitioning to a different kind of nutritional paradigm, there's going to be some shifts.

But I do think having what Glucose Guys refers to as naked carbs, but carbs without anything else, you're going to get a much more exaggerated blood glucose response.

And insulin response are if you have protein and fat or protein and carbohydrates and so I always say protein is the consistent piece that I think is so helpful.

A lot of what I'm starting to see now is people are advocating for I have a starter salad and that was always just part of growing up not knowing that my mother was far smarter than I gave her credit for, but knowing that fiber is going to also, if you tolerate it, is going to help with blood sugar stabilization.

The first one. Is the consistent use. Yeah.

Healthy Fats, Exercise, and Fasting Across Life Stages

The only caveat I have to add is that in the cancer population, we do have to be careful with the amount of protein. Now, that said, too little is too little protein is also dangerous.

And so this is one of those areas that needs to be a little Goldilocks, right? A little too little. We don't want it too much. We want it just right. Yeah.

So I want to talk about that because when you look where where does Fat Fall? Well, in terms of the insulin response, because I think the American Diabetes Association will have you believe I mean, certainly their diet is the perfect diet if you want to get diabetes.

And they they spend a lot of time saying that that is the problem. So can you talk a little bit about that, the insulin response and what your feeling is about that?

Yeah, I couldn't agree with you more that the Ada's recommendations for diabetics are definitely not helping their their metabolic health. So when I'm thinking about healthy fats, it's helping people understand that if we're looking

at macros between fats, protein and carbohydrates, fats have the most negligible impact on blood sugar.

And so the healthy types of fats I'm talking about avocado, I'm talking about grass fed butter, I'm talking about olives and olive oil. I mean, those are good sources of healthy fats, depending on the individual.

Some people don't tolerate heavier animal based fats like duck, fat, lard, tallow. There are obviously exceptions to everyone, but I think some of the lighter, mono unsaturated fats in many ways are much better tolerated.

But they're going to keep your blood sugar stable. And so these are very different than the adulterated seed oils that are highly processed, exposed to chemical solvents, highly inflammatory.

And I think about the research that's come out talking about the most consumed fat in the United States right now is soybean oil, and it's because it proliferates in the processed food industry.

But other examples are canola and sunflower and safflower and cottonseed and just understanding that these oils damage our mitochondria. So down at the cellular level, and I've actually read that they can damage the cellular membrane for up to two years.

So we have these cellular membranes that are phospholipid bilayer and that's quite significant. So you know, from my perspective, when we're talking about healthy fats, we ought to just be mindful that healthy fats not to be confused with seed oils.

Healthy fats are actually much more calorically dense than protein and carbohydrates. So it's easy to overeat them. It's very easy to overeat nuts and seeds and avocados and butter.

And so sometimes I have to caution my patients, like maybe this is the time to measure your portion. So if it's a quarter cup of nuts or half an avocado or you're having a tablespoon of olive oil, just being aware of those portions, especially for my population, that tends to be weight loss resistant.

I remind them like even something healthy, too much of any one thing is not a good thing. So you could put yourself in a position where your weight loss resistant because you're just eating too much healthy fats.

But I think being mindful of that is certainly very important. But I do have quite a few patients that really love to kind of push the envelope on healthy fats.

In particular. They feel really good eating a higher fat diet. And the the last thing on that, I'll ask you is do you think that fasting changes according to ages and decades of life?

Do we come become more in need of fasting? Do we become less in need of fasting? So what's happening as as women cycle through maturity? Yeah, that's a great question.

I would say that, you know, my my population of women that are 35 and under it typically falls into two camps, lean, athletic women that do not need to be fasting frequently versus my PCOS patients.

So polycystic ovarian syndrome patients who were patients who would benefit from some degree of fasting and can get away with a lot more because more often than not they're inflamed.

Insulin resistance is really at the basis for and oxidative stresses of the basis of their disorder as women kind of transition into perimenopause at ten or 15 years preceding menopause.

This is when the lifestyle piece becomes hugely impactful. So really understanding that things like stress management, because we become less stress resilient as our ovaries are producing less progesterone and our adrenal glands kind of step in.

It's like the backup quarterback anti-inflammatory nutrition becomes more important, strength training becomes

more important. There's still women that are in their forties and fifties that want to do CrossFit, starting to pick on CrossFit five days a week with no rest days.

And they wonder why, you know, they're they're struggling to to manage that degree of workload on their bodies. And sleep sleep becomes hugely important.

So if you're not sleeping, you're eating a garbage diet, you're over exercising and you're not managing your stress, adding fasting and is like adding gasoline to a fire.

It's going to make it harder. But in the context, if all those things are dialed in, I think fasting, especially based on where a woman is in her menstrual cycle, again, the follicular phase is when women can get away with a bit of fasting, more intense exercise, etc.

And then menopause, I think is probably the easiest time for most women to fast because there's not as much hormonal fluctuation week to week, month to month, provided that caveat.

Again, they're sleeping, they're eating an anti-inflammatory diet, they're exercising properly and they're managing their stress. But I find a lot of women, the presumption is made it's getting harder to maintain my weight north of 40.

So they're like, if a little bit of fasting is good, more is better. These are the women that are doing nomad one meal a day. There's women that are working out six days a week with no rest days.

They're not eating enough food and their sleep quality is eroded and. It becomes this vicious cycle of trying to help them understand that fasting is a form of, for me says beneficial stress in the right amount at the right time, right.

But if you're doing it when it's not at the right time, it can actually make it harder for your body to function optimally. So assuming that all those other pieces are dialed in, let's just summarize what are the benefits of fasting?

As long as you're protecting your sleep and you're not over stressing on, you're not over exercising and you're eating the right things, what benefits should people expect to get from fasting?

You know, I think a lot of people come to fasting because they want to change body composition or want to lose weight, but they stay for the mental clarity.

They stay for the the energy that they feel.

Benefits of Fasting and Final Takeaways

They stay because they have a reduction in inflammation. Maybe their joints no longer hurt. Maybe they're able to get up and be more physically active.

All of a sudden, their blood pressure improves their other biophysical markers, improve their lipids, improve their triglycerides, go down their their HDL gets up, goes up, their LDL goes down, potentially their inflammatory markers like high cysteine CDRP and homocysteine oftentimes can improve.

They reduce their risk of neurocognitive disorders. I think about Parkinson's as I think about Alzheimer's in particular. And then this autophagy, this waste and recycling process, which I know we've kind of alluded to during our conversation, think is one of the most important ones, understanding that it allows your body to go in and remove disease, disordered organelles, mitochondria that have the potential to go on and create disease or precancerous cells.

And so understanding that the process of eating less often is so much more than the physicality. And I think the other thing that I would tie in to that is greater spiritual awareness.

The longer that I have been fasting, the more I feel much more connected to nature, my relationships, etc. It allows

you to eat spiritual fasting or fasting from relationships, but I think it's also very helpful for people to understand that the fasting is much more than body composition changes.

It's the deep cellular improvements down to the mitochondrial level, cellular level that really confer a lot of benefits. And certainly for your population of patients, something that I think would be hugely helpful to do in conjunction with treatment.

Yeah, absolutely. And we actually know through the work of Valter Longo that fasting, mimicking, eating beyond eating underneath a certain threshold is very beneficial throughout chemotherapy treatments because it protects normal tissues while making the cancer cells quite vulnerable.

So we talked about a lot of great stuff today. We talked about metabolic health, metabolic syndrome, the risk factors, what to look for. Everyone should know what their fasting insulin level is like.

We talked about the importance of tying in those other lifestyle factors because fasting alone is is somewhat of a stressor. And so you want to make sure that you've pulled the stressors out of out of the rest of your life, the myths dispelled about small, frequent meals being beneficial.

They're anything but. Breakfast is not the most important meal of the day. And when you are breaking your fast, you want it to be with a savory meal to stabilize your blood sugar.

So a bowl of oatmeal and a glass of OJ is probably the worst choice that you could make if you're not hungry. Don't eat and stop snacking. We talked about how to use your continuous glucose monitor and the benefits of doing that.

And then we talked about the role of fat, how you should exercise, especially as you as you age. And and we finished with the benefits of fasting. So this was a phenomenal talk.

I thank you so much for your time, for your brilliance. Everyone should read your book. And where can people find you? Yeah, so probably easiest to go to my website.

Thank you again for including me and your summit www. CynthiaThurlow.com I am active on Instagram. I'm a little snarky on Twitter. I do have a YouTube channel that I'm aggressively trying to grow.

And I have a wonderful podcast called Everyday Wellness, which is absolutely, positively one of my favorite things I do in my business. I will be interviewing Dr.

Jenn tomorrow for the podcast and of course on my website you can also get my book, The Intermittent Fasting Transformation. I have 45 and can check out all of that information on the website.

Great. Thank you so much. It's Dr. Jenn Bye for now.