Introduction and Angela Grassiu2019s PCOS Story

Welcome to this episode of the PCOS SOS Summit. I'm your host, Dr. Felice Gersh. With me for this super fun episode is a long time friend of mine, someone I just adore, Angela Grassi.

Now she is so accomplished. She's an internationally recognized specialist in PCOS dealing with all aspects of nutrition. She's published multiple books.

She's published peer reviewed articles. She lectures. She teaches. She's just the guru of nutrition and PCOS. And she has the PCOS nutrition center, which we'll talk about as well.

So we're going to do a deep dove into different aspects of nutritional supplements for women with PCOS. But first, welcome, Angela. Thank you so much for joining me and I know you are open about yourself having a struggle with PCOS, so I'd love for you to tell your own story, your journey, and how you got involved in nutrition and decided to focus on helping women all over the world with PCOS.

Yeah, thanks for having me, Dr. Gersh. It's wonderful to talk with you and I'm glad that you mentioned that I have PCOS myself because so many people with this condition feel so alone and that's really I mean, as it's pretty common, as we know, it's just really overlooked.

So it's always a pleasure to talk about PCOS and nutrition and supplements is what I really like to do as a dietitian. But before I was diagnosed with PCOS, I was already working as a dietitian, working with people with eating disorders, and it was around that time that I started to see more PCOS.

There's a connection, as you know, with PCOS and the eating disorders. And then around that same time I started to have symptoms of my own that were PCOS related.

I always had regular periods, so it wasn't on the radar for a while, but I did get acne and the weight gain out of the blue. So once I got that diagnosis and I was just blown away that I had it and that there wasn't a lot of information in regards to nutrition and lifestyle, and I decided to make it my focus of my work.

Well, we're so glad that you did. And tell us, like, if you're eating a good, nutritious diet, why do you even need supplementation? What's the point of supplementation?

That's a great question. And when we talk about supplements, we can be talking about herbal supplements, we can talk about powders, we can be talking about vitamins and minerals.

And there is research to show that people with PCOS are deficient in a lot of key vitamins like vitamin D and zinc and magnesium.

Why Supplements Matter in PCOS

And it might not be that, you know, people with PCOS just aren't eating the right kinds of foods. It could be an absorption issue. So it's really important to individualize and, you know, work on your symptoms and supplements can really make a difference.

Well, I'm so glad you mentioned a few key nutrients. Maybe you could just talk a little bit about, you know, some of the ones you mentioned, some of the minerals, vitamins and what they do in the body.

You know, it's really nice if people know, like, what did these even do? How can they play a role in terms of some of my symptoms or manifestations of PCOS?

Like can I help actually change some of the course some of the manifestations by taking these nutrients? Yeah, you absolutely can, especially if you are deficient in them.

Like, for example, zinc. We know that zinc can work to inhibit testosterone from converting to its active form. DHT Right. And so if you take zinc, it might help to reduce your testosterone levels and that can help to improve your acne.

It can help maybe with the hair growth and it's involved in energy metabolism, too. So that's just one example. I mean, there's so many that, you know, we can talk about and I'm happy to do so.

And if, you know, like people are deficient in magnesium and then they take magnesium, what kind of areas of the body may that affect in a good way by taking it?

Yeah. Magnesium has so many benefits to people with PCOS and that's one of the nutrients that has been shown to be deficient in people with PCOS. So magnesium helps with energy production, but magnesium is also a calming mineral, right?

So when we take magnesium, especially in the evening, it can help promote some sleepiness. And we also know that magnesium can help with insulin resistance.

Yeah, I know magnesium. I don't know if you can have favorites, but I think my top two are magnesium and also the zinc. But there are so many other minerals.

So maybe you could mention a couple of others like like well, what is selenium? Some people have heard about that. Maybe it has something to do with thyroid or or other.

Absolutely. So selenium can be it is involved in thyroid functioning as is iodine, right. And people can be deficient in these. So it's really important you can get your minerals checked.

Magnesium is kind of difficult for my understanding to really check because it's stored in the bone. But you can check zinc levels and and they're water soluble.

You know, you're not they're not going to become toxic, these minerals.

Key Minerals and Vitamin D

So if you take too much of them, they're usually going to just excrete out any excess. But they could be really helpful. Yeah, absolutely. And you mentioned vitamin D.

I know that's sort of trendy, but for a good reason. Maybe you could tell us something about vitamin D. Vitamin D is one of my favorites. And the majority of people I think in America are deficient in vitamin D, you know better than this from I'm sure you're testing vitamin D in your patients, but patients with PCOS, I mean, it's a real concern.

We know that vitamin D affects mood. Supplementing with vitamin D has been shown to help regulate menstrual cycles. It's good for inflammation and it's particularly important for fertility.

So people that are deficient in vitamin D have a harder time getting pregnant because it really affects the oocyte quality and ovulation. There's a direct correlation with that.

I always have my patients who are trying to conceive on higher levels of vitamin D and continue throughout pregnancy because we're even finding the research is showing that vitamin D levels drop through pregnancy in mothers.

So really important to supplement with vitamin D and it's fat soluble. I have so many clients that come to me and said, you know, I can't get my vitamin D level up.

And I'm like, When are you taking it? And they're taking on an empty stomach in the morning, or they just take it with a piece of fruit and it's fat soluble vitamin D.

So it's really important to take it with a meal that contains some fat foods. What about other fat soluble vitamins? Should they be on our radar? Absolutely.

So other there's for fat soluble vitamins, vitamins A, D, E, and K and they're again, they're fat soluble. So you absorb them with food. And that's really important because if you don't have enough fat with your meal, you're not going to absorb them.

Well, absolutely. And what about talking about fats? What about Omega three? I know people have talked about that one quite a bit. Like is that is omega three different from fish oil or is it fish oil?

What what are the differences between those two things if you're looking at a label? Yeah. So the main fish oils are the DHA that are in a lot of prenatal and then EPA.

These are the best absorbed forms of omega threes. There is a plant based omega three as well, but we utilize the DHEA and the EPA really well and it's great for inflammation.

It can help with your skin and your hair. It can help with menstrual regularity and it's really anti-inflammatory. So omega threes are great. If you have high triglycerides, omega threes are the way to go to bring those bring those down.

And, you know, people have heard of polyphenols. So what are polyphenols? And is there a role for specific poly phenols supplementation? Yeah, polyphenols can be really helpful in particularly if you have high cholesterol.

So polyphenols can be great like food sources, could be avocados, for example. We see polyphenols and those and these are great to help reduce if you have high cholesterol.

Well talking about like cholesterol so let's look at some different and there are so many areas that women with PCOS have to deal with. But we'll just start with a few.

Like how about sleep now? So many women with PCOS have high levels of stress and they really have trouble falling or staying asleep. Are there any nutritional or herbal supplements that that you find really helpful for promoting restful calm sleep?

Yeah, sleep is so difficult and we do see more sleep problems in patients with PCOS and sleep apnea is a big concern for patients with PCOS. But if it's like anxiety related, there are herbal supplements that can help in addition to, you know, melatonin could help.

And melatonin, it's not an herb, but it's a it's a hormone, an antioxidant. But that can help with improving insulin sensitivity and even fertility. But then we see things like we mentioned, magnesium is a mineral, but l-theanine and we see things like GABA can really be helpful.

And what is L-Theanine? L-Theanine is an amino acid and that can really help. It's just a herbal supplement that can help promote resourcefulness and sleep.

And how about GABA?

Omega-3s, Polyphenols, and Sleep Support

You mention that what is Gabba. Gabba Gabba is similar. So it's, it's also like a calming and relaxing thing supplement. And another area which you already touched on is insulin resistance dealing with the high sugar levels and, and just trying to avoid becoming diabetic.

So what kinds of supplements can be really useful for women with PCOS dealing with insulin resistance? Yeah, up to around 70% of patients with PCOS struggle with insulin resistance.

So some key ones would be Berberine, which is an herbal supplement that's been around for hundreds of years and, you know, used as a treatment for type two diabetes.

But Berberine can really be effective at bringing down glucose and insulin. Inositol can be really helpful for that. And there's even some emerging research that coenzyme Q10 can help with that too.

So a lot of people have heard some of those words, but let's do a little deeper. Dove So what is Inositol Yes. And also Stars. One of my favorites, Inositol is a relative of the B vitamins and it's known as a secondary messenger.

So it really helps to relay signals in the body of insulin regulation to really help insulin work properly in the body. And they've been shown, you know, research has shown that there's a defect in the ability of people with PCOS to use Inositol.

There's two main types, Myo Inositol and D Chiro Inositol, and it's believed that there's an enzyme defect, so that Myo is getting converted way too fast into Chiro Inositol and as a result, your body is depleted in Myo Inositol.

So Myo Inositol is really important because it can help with insulin resistance, but it's also really important for fertility and air quality and menstrual regularity.

Well, that should be on everyone's list. And wouldn't you say definitely. It's one of my favorites. And in terms of Berberine, now, I know there's been actually in the news I saw in like the regular popular news talking about Berberine may be a natural form of a GLP one agonist.

Those are the drugs like Ozempic Wegovy that are so trendy now. So can Berberine actually help with weight loss? And what does anyone know what it's doing in the body?

And you know, you mentioned for blood sugar regulation is does it do even more than that? Or maybe you could talk a little bit more about Berberine, since a lot of people have now heard about it.

Yes, Berberine is a hot topic right now. Berberine is a herbal supplement. And like I said, it's been around a long time. We know that it has the ability to lower insulin.

It can also help with cholesterol and fatty liver. There is some research that it can help with body fat loss and it works in the body too. I won't get into too specific of the biochemistry of it, but it does work to decrease fatty acid production.

Well, that's great. So that would be another one of the sort of mainstays for women with PCOS. It could have been Berberine can have the ability to lower glucose levels.

So it's really important, you know, to work with your health care provider to find out how much and what else you're taking. But Berberine is very effective right now.

You also mentioned Coke Q10. No, you know, does that stand for something? And what does Coke, Q10 do? And is it you should you take it in a specific form?

You know, just a little bit like what is it? Tell us more about it. Yeah, Coke Q10 is coenzyme Q10 and it's really important in energy production. People who take a statin usually have low levels of CoQ10 because it really affects the absorption of that they're finding.

But Coke tends an antioxidant and it's really helpful for insulin production and regulation and also really important for equality. So we like to, you know, especially people who are trying to get pregnant.

Coke utan is something to consider. The best form of the absorption is ubiquitous. Yeah, that's the one that I use in my practice now. Yes. Now another couple of sort of we'll say in the news and somewhat trendy, but maybe for a good reason would be some of the other polyphenols they talk about like very Adderall and Quercetin.

So let's say like what about resveratrol?

Insulin Resistance and Blood Sugar Supplements

Is that the one from drinking red wine and we supposed to do that or what is resveratrol? And is there any like value in looking for supplements with that?

Yeah, both resveratrol and certain are polyphenols and they're really helpful there. Any oxidants they've been known to help with anti-aging properties.

It is the same property that's found in red wine in the skin of the darker grapes. It's not the equivalent. You're not going to get all the benefits from drinking wine.

You have to drink a lot of it, which we don't recommend. But it's an antioxidant. It's been shown to help improve insulin sensitivity as well. So some good emerging research on resveratrol in for certain for PCOS.

And what kinds of foods. You know, if you take it as a supplement supplement, that would be great. But maybe like you mentioned, some of the foods that resveratrol comes from.

What about some of these other polyphenol and then getting into others like carotenoids? What foods did they come from? And should we be looking at some of these other types of polyphenols?

Yeah, definitely. I mean, the darker the colors and the more vibrant the colors, the more I think nutrients the foods going to have. So when you think of like the dark skin of the grapes and berries, the blueberries, we see that.

We see it in in, you know, a bunch of different vegetables. It's why we always say that eat the rainbow, because you're going to get nutrients from all these different foods and they're just rich in antioxidants that are going to help with inflammation.

And PCOS. Now, a lot of people have talked about garlic. I know they advertise different forms of garlic on on television. So is there value for women with PCOS to think about garlic either as a food or a garlic powder in a capsule?

So maybe you could talk to us a little bit about garlic. Yeah, garlic is considered a prebiotic like onions, too, and there's a lot of antioxidant properties.

And these you could certainly if you enjoy garlic, it's always great to get through food. I mean, you'll have some bad breath or headaches. Just brush your teeth after have a mint or some gum.

But garlic is fantastic either as a supplement or through food is. It's great to incorporate if you enjoy it. Yeah. And what about some spices, you know, so you can take spices as, you know, put it on your food or you can often buy them also as a supplement like cinnamon.

How about that one? Right. We're getting into fall. Everyone likes cinnamon. And cinnamon is a great spice. It's been shown to help improve glucose utilization and lower glucose levels.

So that's a great one to have. You can sprinkle it in your food. They also have it in capsule form curriculum. You know, Tuma is really a great spice too.

It's has antioxidant properties, it's anti-inflammatory and that's another one to add to your food or that you can take in supplement form too, especially if you have a lot of joint pain and inflammation.

Tumor maraca curriculum are great to have. Yeah, those are favorites of mine as well. And a lot of women with PCOS will have acid reflux and heartburn.

Are there any supplements that can help them with their digest iron, improve it and maybe help to stave off acid reflux? Yeah, acid reflux is can be really common.

And a lot of those over-the-counter prescription medicines can actually deplete levels of B12. Right. We're finding that. So it's really important to find out what the root cause of it is.

But sometimes taking digestive enzymes can actually help with a lot of reflux. What do you find is helpful, Dr. Gersh, for that? Well, sometimes I like, like Slippery Elm and like Diggle, that's, you know, special form of licorice, so.

And drinking like camomile tea. Absolutely. Chamomile tea is always an effective treatment for it. And how about teas? We don't usually think of tea as a supplement, but you could have tea and think of it as a supplement.

Absolutely. I mean, tea has tons of antioxidants in it. So in any form or flavor that you enjoy, if you like it hot or cold, but in particular, green tea and spearmint tea have been researched in patients with PCOS and it's actually been shown to help lower testosterone levels and it's anti-inflammatory.

So these are, you know, great foods to incorporate. Oh, that's great.

Mood, B12, and Eating Disorder Support

I mean, this is an array, you know, so many different teas. I don't know if you have any other favorites. Like for me, one of my favorites is Ginger Tea.

So I thought maybe you could touch on Ginger as either as a food, a tea, or you can take it as a supplement. Absolutely. Ginger has anti-inflammatory properties.

Antioxidant properties. It's great to incorporate in tea. That would be a wonderful way to incorporate it into your food. Yeah. And so many women with PCOS also struggle with mood disorders.

You know, they have a lot of anxiety and depression. Anything that you can suggest for them in terms of a supplement or even a food. Yeah, I really find that people with PCOS really struggle with the disorders.

And as far as supplements go, magnesium is a good one to help, especially with anxiety. We also find to help with mood omega three fats. So eating those from foods like avocados, avocado, avocado oil, olive oil or olives, nuts and seeds are great sources of these as well as fish and fish oil and vitamin D, too, as we talked about at the beginning that so many patients are deficient in vitamin D and vitamin D can affect mood.

It can really contribute to depression. And then one more that's always overlooked is vitamin B12, because so many patients with PCOS take metformin and they might be on birth control pills that can deplete levels of B12.

And B12, we're finding, has an effect on mood. Yeah, that is so true. B12 is so critical. And that's true. And also, what about birth control pills as a nutrient deplete her?

What do you find in terms of your patients, your clients that you deal with that are on birth control pills? Do you have exposure? Do you have special concerns about their nutrient status?

Yeah, I like to have them definitely on the B12, definitely on B vitamins. Those are so important. And in terms of eating disorders, you know, that is so prevalent, is there anything that you have found that helps women who have, say, the most common binge eating disorder in terms of either supplements or actual foods that can help in controlling that?

Yeah, eating disorders are really common and all so much is related to those hormones and insulin is an appetite stimulant. So it's almost forcing you to want to have these foods.

So supplements that bring down insulin could be helpful like Berberine or inositol and also is great for helping with craving and some strategies just through food is to try and have that balance.

Like if you have some carbohydrates in your meal or your snack, balance them with some protein and some fats because then the glucose will be better regulated.

When glucose levels drop, that's when you're hungry. And if you get low blood sugar, which can happen, then you're going to need to eat more food to bring that up.

It's just a physiological response. What the body does. Well, that sounds like really good advice. And in terms of when you take supplements like you mentioned, you know, you shouldn't take fat soluble vitamins without fat.

So if you're going to take other supplements, is it okay to just take them all at one meal or do you like to divide them up over the course of the day?

Or do you try to just say, get it in when you can, you know, make sure fat soluble vitamins are taken with some kind of fatty food or how do you deal with like the wide array of, you know, pills?

I call it politesse, where if you get too many pills. Oh, yes. And I've had patients bring in bags full of bottles and supplements, and it's a lot. I find that getting a pill box can be really helpful.

You can spread out vitamins. It is best to take most of what we've talked about with food. Absolutely. You're just going to absorb it better. And those fat soluble vitamins, you need that fat.

But there's some that you can spread out, too. You don't need to take like berberine all at once. You can take it a, you know, breakfast, lunch and dinner, for example.

Magnesium is better to take in the evening fish oil.

How to Take Supplements and Support Detox

You can spread that out. So it really depends on what you're taking and how much you're taking. Yeah. And in terms of just sort of gut health and liver health, like you mentioned about even touched on fatty liver in terms of like detoxing of people with they have some studies that women with PCOS may be accumulating more toxic chemicals in their bodies and average women maybe getting it out isn't as easy.

So do you do any kind of detox programs and what kind of supplements can help the liver to work better or the gut just to help you know, deal with all of the pollutants that end up in our bodies?

Yeah, it's pretty scary when you think about it, how much is in our environment and even you know, our water supply. They're finding those forever chemicals and so much of it.

And definitely you want to be drinking filtered water. You know, that's a given. But as far as for your liver, Berberine can be really helpful for detoxification.

So can NAC and acetyl cysteine. We really haven't talked too much about NAC, but NAC is an amino acid and an antioxidant that can support detoxification and getting a good probiotic is going to be really important too.

And addressing gut health because that is the roots that, you know, it's so important we're seeing, you know, gut health linking to so many chronic diseases and digestive problems and trouble absorbing nutrients.

So, you know, really spending some time on improving your gut health is going to be so important. And I know that

sometimes the cruciferous vegetables, especially broccoli, is like in the news and they talk about broccoli sprouts.

So what is a sprout versus a food? And is there a value in not just eating the food like broccoli or broccoli sprouts? And then you'll tell us, like, what's the difference?

But also taking some sort of a supplement of cruciferous vegetables or their derivatives or broccoli sprouts. Or tell us a little bit about that whole area.

Yeah, because the first vegetables so broccoli, cauliflower, these are really great for gut health and detoxification. It's always best to get it through food if you can.

I know they cause a lot of gas and and that's one of the benefits of it. When they're fermenting in the body, it's going to produce the good bacteria.

Yeah. That's going to help fight the bad bacteria. So you can take these in supplement form, too. But these are, you know, like the broccoli sprouts and adding cauliflower to your you know, your eating is a great way to work on even hormone detoxification, too.

Right. And I know people have heard of some of the extracts like Dim because, you know, our patients, our viewers out there have done a lot of reading.

So maybe you could mention like what is dim and maybe Sulforaphane or these extracts and do you recommend them or just stick with eating broccoli? I recommend getting, you know, the cruciferous vegetables, mostly through food.

Some people would benefit from them. I feel that I would like personally to see more research on GM. I don't tend to use it as much as some other providers.

I just like to focus more on food. Well, I tend to agree in a lot of ways with that. I only usually use them for maybe up to six weeks. I don't usually do like long term use of these extracts and love the food.

And getting back to just tell, tell us a little bit more because I want to know like the difference or the benefits of sprouting because I know that's such a like a popular thing, you know, sprouting.

Yeah. And even so you can get sprouted broccoli adding sprouts to your diet is is really helpful. It's gut bacteria your body's going to ferment it and produce those good bacteria in your gut.

And then we also even see like sprouted bread can be really helpful too. And producing good fiber and helping with that gut bacteria. Now I know that another trendy food but also a good reason are beets.

And I know some people think, oh, beets are like too sugary or what other of say beets help you to get nitric oxide and there's beet powder, there is beet drinks, of course there's an actual beet.

So maybe you could do a little bit of education for us on beets. Yeah. Again, the color look at these, you know, food that has all these vibrant colors and beets are a great vibrant color.

Right. And they're just going to provide so many antioxidants and nutrients that are going to help a lot of anti-inflammatory properties. They don't have natural sugar and they have fiber in them and they're great for gut health as well as inflammation. And so you are a pro beet person.

I personally don't enjoy these, but I love the benefits of beets and. And what? Oh, well, you know, you can't help what your taste buds tell you right now.

Gut Health, Fiber, and Digestive Support

Some people talk about greens like certain like bitter greens and there are dandelion supplements, dandelion greens you can have as a salad. So maybe you could talk about the bitter greens and do they stimulate gut function in some good way and should you eat them or can you take them as a supplement like if you don't like the bitterness?

Yeah, absolutely. It seems like there's a supplement for everything, right, that you can get, but obviously you can get it through food and incorporating some dandelions and bitter greens and mixing them into, you know, some of your other greens if you don't enjoy it that much.

But just to get some of the benefits, they're really going to help with your gut bacteria and detoxification. Absolutely. And maybe you could touch on are there specific nutrients that can help support gallbladder health in any way?

Because gallstones are another problem that a lot of women face. Right. An adequate hydration. You know, so many people overlook that you need adequate hydration.

That's really going to help with the gallstones, whether it's through teas that we talked about or hot or cold teas or having filtered water is going to be one of the best ways.

What do you like for gallbladder health? Well, I didn't tend to like having people eat bitter greens. That tends to help the gallbladder contract, you know, and you can start a little bit of, you know, a little bit of arugula or dandelion greens at the start of the meal.

Mix it with a little vinaigrette. Then that can really get your gallbladder in a happy state. Also the old fashioned thing of chew your food, you know, like, you know, like if people gobble their food down too fast, it doesn't sort of help the brain to connect to to tell the different organs of the GI tract to start waking up and doing their thing, you know, so, so I think chewing and eating slowly and mindfully can be really helpful to getting better gallbladder function.

Absolutely. And just the whole body functioning. I'm a big proponent of the slow food movement and really slowing down and tasting our food. We're always in a rush and it's so important for digestion.

And in talking about slow so many women with PCOS have constipation, they have definitely slow movements. So any suggestions for the women out there who do suffer with constipation?

Yeah, unless they're taking metformin. Right. Which causes diarrhea. But if you do have constipation, that could be a sign that your gut's not working properly.

So I would definitely address hydration. I would definitely address fiber. And getting the soluble fiber in whole grains are a great source of that. Beans and legumes are great.

And perhaps, you know, consider a probiotic that could really help address it and getting moving. You know, so many people are sedentary and we know that movement really helps with constipation, too.

And so glad you mentioned fiber. Now there are many foods that have great fiber. You mentioned a whole bunch of them. And then there are also all these different fiber supplements on the market.

So can you touch on them? Do you actually recommend fiber supplements at all or just eat the food with the fiber? Some people might need fiber supplements to help keep them regulated or if they're having a hard time, you know, they're dieting or really watching their caloric intake.

But in general, if you can get it through food, we'd like to see at least 25 grams of fiber a day. And the reason is your body doesn't digest fiber. It's going to ferment it.

And when you have fiber, it's really going to help improve that gut health through foods. So that's what we're looking for. And along those lines, sometimes you hear people talking about resistant starch.

Maybe you can comment on that. And what is resistant starch? Can you take it as a supplement or what foods would be a resistant starch? Yeah, there's definitely resistant starch like powders that you can incorporate, but resistant starches are lower in glycemic index is taking up food like corn or potatoes and cooking them, but then chewing them.

And when you chill them, they become more resistant to increasing kind of your blood sugar levels. And they're good for gut health. Well, that's great.

I happen to love cold potato salad with, you know, a little bit of good quality oil and vinegar. Vinegar, right. Some green beans in there. I know. It's one of my favorite salads that she makes so.

Many people have, you know, just said they're villains. You know, those potatoes are villains. So eating a cold potato actually can control blood glucose.

PCOS Nutrition Center and Closing Resources

Yeah, enjoy it. I mean, and, you know, people overlook sweet, too, although, again, the color tons of vitamin C, vitamin A and sweet potatoes. And if you chill them, they become more resistant.

Starches resistant to lowering or raising your blood sugar. And they're great for your gut health, too. And how about plantains or bananas? Yeah. I mean, they tend to be higher in starches.

They get a bad rap of bananas, typically two servings of a fruit. So it's like eating two apples in a way as to small apples. So just higher in starches, again, pair them with some protein and fat.

They're okay to, you know, put it into a smoothie or, you know, put some nut butter in there, some greens, and you can blend it all up. Well, you are just a wealth of knowledge.

I love it. I think we could chat all day and we will because we're going to be seeing each other. And I am so thankful for you to join me here for this and adding so much to my PCOS SOS summit.

Now you have the PCOS Nutrition Center and you've written all these books. So maybe you could tell us how people could access more of your wealth of knowledge and how they can potentially even work with you to improve their their status as PCOS women.

Yeah, I at the PCOS Nutrition Center, we have tons of blog posts and information about the research on a lot of these supplements. We talked about there's a quiz you can take to maybe get matched with some recommendations based on your, you know, personal symptoms that you're experiencing so they can head over to PCOSNutrition.com.

Oh, that's fantastic. And maybe you could share a little bit about the books that you've written. Yeah, I have a couple of books. One is called The PCOS Workbook, Your Guide to Complete Physical and Emotional Health.

And of course, it addresses nutrition, but also the mood and body image and stress management, sleep and coping with infertility. And then I have a cookbook out, the PCOS Nutrition Center Cookbook, which has 100 whole food recipes to help you improve your PCOS.

Well, that's fantastic. Well, once again, thank you so much. There is so much here. I think everyone has to go back and listen to this interview about three times to get, you know, all of this information organized.

And I can't thank you enough. And I really want everyone to go and check out your website. You have such a wealth of information out there for everyone with PCOS.

So thanks again. Thank you. Always good to talk to you.