Introduction and Fiona McCullochu2019s PCOS background

Welcome to this episode of the PCOS SOS Summit. I'm your host, Dr. Felice Gersh. With me for this episode is a long time friend and fellow spirit when it comes to most everything, especially PCOS, Dr. Fiona McCulloch She is the bestselling author of an amazing book on PCOS, which I'm going to have her introduce and tell you about because I know you're going to want to read it and we're going to talk about a really important topic, dealing with androgen excess symptomatology.

But first, welcome, Fiona, and please tell us about your own journey into this field and how you became so interested in women's health issues and PCOS in particular.

Thank you so much, Dr. Felice and I agree we are definitely kindred spirits in this area. I have looked up to you for a very long time and I've learned so much from you.

So thank you for that and it's great to be here. So I'm a naturopathic doctor. I've been in practice for 22 years in Toronto. I practice primarily in the area of hormones and women's health, so I do treat a lot of PCOS.

I have PCOS myself, so I have a very special interest in that and it's affected my own life in many different ways. So I'm very passionate about helping patients with it, and I just find the condition is just very interesting, fascinating.

It gives you a chance to work on all the different areas of hormones and metabolism. So at my clinic, this is what we love to help people with. Well, I know that you have been doing a fantastic job.

And one of the areas that is pretty close to Universal, I know there's controversy on this topic, you know, whether it should be included 100% or not in the definition of PCOS.

But for now, let's assume that the vast majority of women certainly the ones I see that are dealing with PCOS, are also dealing with an issue called androgen excess symptoms.

And in all the related issues that come from that to stem from this issue. So maybe what you could do is define for all of the women out there with PCOS, what does androgen excess mean in the first place and what are some of the manifestations?

Yeah. So androgens are hormones that are. We think of them as testosterone, but there is a bunch of other ones that act similarly to testosterone that are in the same category.

So these are hormones that cause certain kinds of changes in our physiology, and we do need to have androgens. If we don't have them, we won't actually be fertile at all.

Understanding androgen excess in PCOS

And they're required for muscle mass motivation and drive, and there's all sorts of great things that they do. But in PCOS, a very central part of the condition is too much of these hormones.

So what happens is when there's too many androgens, we can see a blocking of ovulation, so irregular cycles, and they can also start to affect the skin and hair.

So we can see acne on the jawline, especially inflammatory acne. We can see hair loss, which is typically in the middle of the center of the head and the heart will open.

And then we can see hair growth, unwanted hair growth. So often that's on the face, the chin, sometimes on the

abdomen and chest. So those are the most notable symptoms.

Sometimes you can see the androgens in lab testing, but a lot of the time people will see either their symptoms mostly are presenting this way. And in terms of what is going on.

So you mentioned that there's a different variety of androgens. So where are they made and why would women with PCOS, unlike the vast majority of women out there, why did they develop this androgen excess?

Where is it coming from? Yeah. So they the androgens are made mostly by the ovary and some by the adrenals. So in some patients they make a bit more from their adrenals than others.

But in PCOS, a lot of them do come from the ovary. And the way that this it looks like the cause of this actually is a combination of genetics and epigenetics.

So basically, as we're developing in the womb, we might have certain genes that give us a predisposition to having androgen excess. Those genes actually help with survival.

They can give you muscle mass, they can help you store energy better. So there's reasons we have those genes. They can help you reproduce a little bit later, possibly as well.

So there's some benefits there. But then epigenetics are involved, too. So we know that different kinds of endocrine disruptors in our environment, like plastics, many other endocrine disruptors are everywhere and in our bodies at all the time.

Even if we try to, you know, stay as clean as possible, they're just everywhere now. And these can influence the way that the the fetus develops. And in particular, if these genes are present, this can activate PCOS and they can actually do this with animal studies.

They can induce PCOS with this sort of mechanism. And everything stays calm until puberty. And then you see the androgens when the ovaries and adrenals start to make hormones.

So it's quite a complex process and of course we still have a lot to learn, but it's really looking like this is what is underlying a lot of PCOS. Well, certainly the vast majority of women with PCOS are suffering from a variety or all of the manifestations.

I know for myself because I like you part of our kindred spirits situation. I also deal. I still do. It's just that it's not obvious any longer. But I had to deal with PCOS and for me the greatest manifestation of androgen excess was recalcitrant acne, which drove me absolutely crazy and it wasn't really clear what to do except what I was told, which is, you know, common thing is go on birth control pills, which didn't really agree with me.

So that was a long time ago. So what are some of the newer ways that women who are dealing with acne can approach this really like talk about undermining your self-esteem and it's so unpleasant and just so many ways.

So are there better ways or is birth control pills the best way to still go about dealing with acne? Yeah. And I had the same I had acne that it was very severe and it was there for like 15 years, you know, until I had it taken care of with figuring out I had PCOS and I also had the hair loss.

And it's true that all they really offer is birth control pills.

Treating acne with hormones, herbs, and nutrition

So these days what we know is that when especially when it comes to acne, that the insulin resistance portion is pretty important. So because acne is aggravate it by the androgens but also by insulin resistance.

And if patients have that, if they work on that, that can really help acne for anti androgens, we always want to try to

as much as possible help a patient ovulate because if the patient isn't ovulating or they're so late in ovulating, what we know is that there's less exposure to estrogen and there's more time exposure to higher levels of androgens.

So helping with ovulation is really important. One of the things I like to use in my practice a lot is cyclic progesterone therapy. So this is using natural mechanized progesterone.

This can work in so many ways to help patients with both lean and insulin resistant PCOS because it lowers the LH hormone that drives the testosterone production and over time and with repetition, that can help ovulation.

So that really helps things like acne and hair loss and hirsutism. It's a natural option, does have to be prescribed by a doctor, but it's much safer than birth control, for example, and really works with the mechanisms of the body.

And then there's a lot of different herbs that we can use for acne and high androgens. One of my favorite combinations is Licorice and Peony. This is a 5050 combo.

It's an anti androgen formula, so this is a favorite. Another one is Palmetto. This is really great for DHT. It's a milder treatment, but it can really help too.

So we and of course, then there's Inositol, which is kind of the mainstay for PCOS. It helps with Androgens insulin resistance. So there's so many things that we can do and each person will kind of want to do something a bit different depending on what works for them.

Some people might be, you know, at a certain phase of life in perimenopause or some people are, you know, younger. And so the treatments that they need might be different, just depending on what they're where they are in life.

And how about food? You know, there have been like sort of, we'll say promulgated ideas like don't eat chocolate or certain foods or dairy might increase acne.

So is there any particular anti-acne diet that you recommend? So we do have some evidence that acne is aggravated by dairy, and dairy does increase IGF one, which is one of the inflammatory triggers for acne.

So there are definitely people who are sensitive to dairy with acne, and the best way to tell is to eliminate and see what happens. Some people that might not be the case, but it's definitely a common thread in acne.

And the other element I would say is just keeping blood sugar balanced. So when creating a meal, making sure it has a really nice balance and that's healthy fats, fiber and protein to balance out the carbs, the blood sugar spikes can really stimulate insulin and make us crave sugar.

And that adds in because any, you know, insulin resistance is a really big trigger for acne. But then I find there's also a lot of individuality. So certain people have certain types of reactions that are unique to them.

Acne has an inflammatory component to it, so we always look at that. It's a little different than some of the other types of androgen excess disorders.

Like you'll see people with acne that don't have PCOS. So there are inflammatory elements that might be unique to each person to that we want to look at with diet.

And women with PCOS tend to have higher levels of stress like more mood swings and so on. So a lot of women don't even have PCOS notice like, well, a special event is coming up or they're very stressed and oh no, look at all my people.

Suddenly I'm breaking out. So how about that? What about the role of stress? And is there a role for mind body medicine in treating acne? So I think stress is very central to PCOS because it is a condition where say for example, if you have insulin resistance, you're just pumping cortisol all the time out of your body from fat cells.

And these fat cells just generate more cortisol. We see lots of mental health disorders in PCOS. So these are all very much part of the whole picture and the stress definitely affects the reproductive access.

Some patients are even much more prone to having these mental health conditions and then having something like acne is just stressful. So we, you know, we know that they're both going to aggravate each other.

And that's why it's really important to treat everything in the whole person. And this is why I really like naturopathic medicine, because we never separate things out.

We look at like, how is this acne affecting the patients mental health? How do they feel? How's their self esteem and how can we support that? And then, you know, is stress affecting acne because stress can sometimes increase the adrenal androgens.

So it's really about looking at that person's whole entire picture and stress and the mind it to me, it's crazy that these two separate the mind and body.

At all. And that just now they're like, Oh, great, it's all connected. But yes, it's it's all one organism. It's amazing all the interconnections that happen.

So this is why I really like helping patients just in where they are, meet them where they are and just support what they need at that time. And sort of sort of a collaborator with stress is insomnia.

And so, you know, a lot of people know that cortisol has a certain rhythm. It tends to be well, in a healthy woman, it would be higher in the morning and then lower at night.

Stress, sleep, and circadian rhythm in PCOS

And then outcomes is other hormone sort of slash neurotransmitter melatonin. But you don't get that if you don't sleep. And a lot of women do have insomnia with PCOS.

Some of them have disturbed sleep from just stress. Some have obstructive sleep apnea. So what is the role of sleep and acne? Is there a role, a connection in melatonin?

I've heard that that has receptors on the ovary. So what's the role there? If you're going to get ovulating, do you need to sleep? Will that help acne?

Yes, I believe it will in many different ways. And we've got a lot of research showing us that the circadian rhythm in PCOS patients is fundamentally disrupted.

So this is a very like central mechanism in the body. And it really it's it's basically I like to think of it as the green lights and the red lights. So in the cities.

So if they're not running at the right rate, you're going to have traffic jams. So when you go to sleep at night, your cortisol should be nice and low and certain things happen at that time when you're sleeping in the body to keep you healthy, repair antioxidants, do all their jobs, and then in the daytime, your cortisol rises up very high in the morning and then all the green lights turn on and all the other things start to happen.

So when that is disrupted, just a lot of different things go wrong. And the metabolism as well really is involved in that. You know, when we eat, when we're sleeping, acne is an inflammatory process.

So when cortisol one of cortisol roles is to deal with inflammation in the body and it needs to be made at the right time, in the right way in order to handle inflammation.

And acne has a lot of inflammation. So basically, if that circadian rhythm isn't quite bright, you may not be able to handle things that are inflammatory as well.

Plus all of the hormonal mechanisms won't work as well either because these all work with cortisol in this Akkadian rhythm too. So it is really important to ensure that you do get enough sleep and to try to make sure your sleep is good quality.

Look, a lot of patients have sleep apnea. They might not even be aware of that. They might not be getting into a deep sleep. So just like that's one area that a lot of people don't think about, but it can make a pretty huge difference.

Not only just, you know, for mental health and energy, but for your overall health. Oh, absolutely. I know. I don't feel very well if I don't get a good night's sleep.

And, you know, most people know that there's a pharmaceutical called Accutane that is prescribed very readily by dermatologists. Certainly in my neighborhood, I can see the dermatologist writing many prescriptions for Accutane.

So Accutane, to my understanding, is really like a high, high dose, super dose of synthetic vitamin A. So vitamin A is a very critical vitamin for all kinds of purposes.

So maybe you could talk about, well, what are natural ways to get vitamin A and are there other vital nutrients that are really essential for skin health and acne in particular?

Yeah. So I do use a lot of vitamin A for acne. I find it extreme. We effective actually. And one thing to know about vitamin E is it can be toxic. The longer you take it, the more you take.

And so it should be monitored, taking vitamin A unless it's under 10,000 IU of vitamin A, but it can work very well without any, you know, without these risks of Accutane.

So that's definitely something I like to prescribe. Pantothenic acid is another one that can really help with inflammatory acne. So that is another treatment I prescribe quite frequently.

Sometimes I'll also use herbal medicines and these are often anti-inflammatory like pseudo larrea. By coincidence, this is herb called by cal skullcap and this one I find great for acne as well.

And then, you know, definitely topicals are really important for acne because it's an infection in your skin and there's going to be a lot of lymph blockage, inflammation in the skin.

So I usually like to recommend some really good topical treatments, something that's anti-inflammatory or something that helps with skin turnover. So there's a lot of different types of products out there, you know, that can have different effects.

So I really like glycolic acid, for example, for a lot of acne patients, it'll just turn over the skin a little bit better. You can also look at, you know, elements with like Rosemary Tea Tree, some of these anti inflammatory, anti androgens and then the skin barrier is really important for acne.

So treatments and ceramides that are topical, the skin barrier is easily a huge part of why acne doesn't get better for a lot of the skin. We're always drying our skin, our drying, drying, drying.

Then the skin never heals. So there's an infection skin barrier component too. So treating acne is a little complex. Sometimes you have to also treat the person's gut as well because it's got a few different elements to it.

Well, talking about the gut, I know there's this whole new area that they call the gut skin accents. You know, they're like communications. And, you know, a lot of people are talking now about leaky gut and how you get endotoxin mir.

The toxins from the gut get into the circulation, creating inflammation. So do always focus on the gut then and are there any like pearls that you could share about helping the gut to be healthier in terms of affecting acne in a good

way?

Nutrients, gut health, and exercise for skin support

Yeah, I feel like the gut is so central for every single thing, and so what I'll always do is take a case and just like, what is this person experiencing symptom wise with their gut?

Like, are they having bloating, are they having poor digestion? They have loose stools. Are constipation like somebody with constipation that is going to aggravate acne.

It's a guarantee because it's just backing everything up. There's more inflammation. So it's like healing the gut in particular for what that patient actually has is really important.

Sometimes people aren't breaking their food down very well. They need help with, you know, betaine, HDL or enzymes. Some people, you know, if they have constipation, they need fiber and support for motility.

So it just depends, really. But if somebody has, for example, an infection in their gut like H. Pylori, then I'd want to treat that. But the barrier is always really important for the gut.

So the barrier is just it basically it's like our skin. It blocks off things from getting inside the body that shouldn't be getting in there. If we didn't have a barrier for our skin and stuff just to get into our body, we'd be dead.

Same with our gut. So it's got this barrier and the barrier can get disrupted. So anything that we can do to rebuild the barrier so there's some supplements like glutamine is very well known as the fuel for the barrier.

We can use different anti-inflammatory types of nutraceuticals like Slippery, as these types of things could really all help support the barrier by just calming inflammation.

So yeah, really, I find it really depends on the person, but probiotics as well can be a really good help for acne because it's they're anti-inflammatory as well.

Well, this there's so much it seems like just a visit to a dermatologist and getting a single prescription for, you know, unfortunately often antibiotics, which has some very significant other potential, even long term effects and ascertain that there are certainly other ways that could be tried first.

And but it's not a simple thing. It's like the whole naturopathic approach. It's looking at the whole global body and really every single organ system has a component in it.

I'm guessing that fitness and exercise probably has a role as well. Yeah, exercise and fitness. I always tell my patients like it's not, you know, sometimes we think, okay, we can exercise and lose weight or whatever, you know.

But this this is really not what exercise I view it for because a lot of studies have shown exercise isn't, you know, the way to lose weight, really, and it's really more for your health and to keep your muscle mass healthy.

It does help a lot with insulin resistance. If you can build muscle mass, if you can exercise helps with mental health, it helps you sleep. So it just helps so many things and we think of it always for weight loss, but that's like not really it like it does so many other things that are just so powerful.

It's anti-inflammatory. For example, if you exercise and you have more muscle mass, your muscles are always secreting anti-inflammatory compounds into your body.

So it just has these benefits that are really widespread way beyond anything like weight loss. So it can definitely help all of the symptoms of PCOS, but you don't want to also, if you're a beginner, don't want to overdo it, you've got to like start slowly, get used to it, figure out what you like to do and what you're going to continue to do.

Sometimes we get on, Oh, it's an all or nothing, you know, but it's exercise. It's beneficial if you can keep doing it forever, really, if it's something you can't keep doing, might not, might be more like a yo yo diet.

So it's I find exercise is definitely for me one of the most important things that's helped me with my PCOS. I know every time they do a study of exercise and compare it to metformin or to antidepressant drugs, it always exercise wins, you know.

So it's just a question of doing it and having so many benefits. In fact, I always say the side effects are actually benefits, you know, everything down the path to improved health, quality of life and along with quality of life for a woman.

You mentioned this for yourself. And I'm not like, you know, parading around with hair that I think is the most fabulous. But hair loss, you know, is such a significant issue, androgenic alopecia.

And it could be accompanied by a fluvial. You know, we have like rapid hair loss. So I'm sure many of the things that you just described would also be applicable for HAIR.

But maybe you could just a little overview of what is going on in hair loss with women with PCOS and then just maybe a summary of, well, what can we do?

We know, is it basically identical to what we would do for acne or are there any special additional tricks? Yeah, here as is another thing I've personally had since my twenties, just gradual and it's fluctuated up and down and right now it's doing okay.

But like there's times it's not. So basically it's one of those fluctuating things, but it tends to be progressive in PCOS because of the androgens. And what is important with hair.

Hair is very different than acne in that it does not tend to get better with age, whereas acne does so hair is already going to thin with age. It just does as a rule for everybody and hair is a dispensable thing to your body.

So hair takes a lot of energy. It's like metabolically demanding to grow hair. And so if something's not right, your body just good by. And that's why we have those sheds with viruses.

If you have low iron, you might have shedding and that's called telogen. That kind of hair loss is reversible and will come back. It's usually delayed by three months.

Hair loss and hirsutism management in PCOS

So with PCOS, you can have a lot of that because the hormones are imbalanced and that can cause telogen. You can have other problems like stress, weight loss causes telogen, but the androgenic hair loss tends to be worse when the androgens are higher.

And then secondly around perimenopause, there could be another problem with the hair loss then. So the treatments for it are dependent. So firstly, we want to correct anything that's causing shedding like Telogen, like low iron, thyroid or anything that like is making your body think.

It's stress that it needs to get rid of hair. And then after that, it's important to make sure that androgens are taken care of in some way that works for the patient.

So if that might be progesterone, like I was mentioning with PCOS, it just lowers androgens and it's also a DHT blocker. So progesterone is definitely one of the mainstays I use because it really helps a lot with hair growth too.

And then, you know, there's definitely looking at things like cycle metals and some of those same things. Rosemary Oil can be used on the scalp and then interestingly, melatonin can also be used topically on the scalp.

So as we were talking about the circadian rhythm, melatonin is actually an antioxidant as well. So it can there's a research showing that using it on the scalp as a spray can really help with hair loss.

And that's really just we know that androgen attack alopecia is caused by inflammation in the scalp. So the hair is become smaller and then, you know, the follicles will be damaged and fall out.

So anything that improves antioxidants in the scalp, this is also really, really helpful for some patients also have fungal growth on their scalp because of the androgen.

So dealing with that can be really helpful too, because that's not good for hair. So things like tea tree or rosemary shampoos can really help. And then they also have PRP now, which is a way of using your own body's platelets to, you know, growth factors and putting that in your scalp seems to I've had some patients do this and it seems to have helped them.

And then for some people, that doesn't help as much. Or, you know, some people say it might even cause a shed, but it's a very interesting therapy as well.

Have we seen good results with the PRP injections? And definitely controlling inflammation is like repeatedly so key to improving the health of every aspect of women with PCOS.

I'm so happy you brought that up. And then the last. But for some women the worst it's variable with every woman with PCOS is Hirsutism. There's nothing that a woman wants to do less than get up every morning and shave her beard.

So any other special hints other than everything that you've already said, which I know and you know, can apply for reducing inflammation and reducing the hair dates this unwanted hair growth.

But any other tricks up your sleeve when. Yeah. So the one difference with this because all the other things are similar, but the one difference with Hirsutism is once that hair is there, you really turn it back.

You've got to like take it out. And the interesting thing is that a lot of patients will find a laser works for some people and then it grows back. But electrolysis can be the answer for patients like that.

Sometimes there's certain patients where laser won't work. Give electrolysis a shot because it does work, but lasers obviously way more convenient if you can.

If it works for you, it does work for a lot of people. But yeah, that's the big thing is that a lot of times we're expecting it to get better. Everything's looking better in our labs.

But no, you actually have to remove the hair that's there and then new ones will not grow back because normally the hair loss techniques, you know, the permanent ones, they are just grows back with PCOS.

So that's the biggest thing with Hirsutism. There's spearmint. Spearmint tea is quite well known for her stitches. I don't view it as much different than any of the other anti androgens.

They can all work like this. But I think the one thing is it's it's one of those things that is physically there so has to be removed. But people can do very well if they do that combined with the other treatments.

Yeah, I would say that your kind of complexion is perfect for a laser hair reduction, but someone with very dark skin, it's much more difficult because the big thing is contrast between the color of the hair and the color of the skin so that they can rev up the energy of the laser beam itself.

Otherwise you get a burn because the laser is attracted into the color. So I think electrolysis is a fantastic other option that so often forgotten, you know, in our world of lasers where lasers are so predominant.

So yeah, I mean, this is probably for many women with PCOS. The other problems like unfortunately or fortunately, you know, depending on how you view it, things like hypertension, metabolic dysfunction, insulin resistance and having high levels of of blood sugar and so on, more invisible.

This is so obvious, you know, having protracted, you know, just very challenging types of cystic acne, losing your hair, the alopecia and then having, you know, hirsutism, having this excessive unwanted hair can really damage every aspect of the life of a woman with PCOS.

So I can't thank you enough, Fiona, for joining me for this really amazing session that you just presented with all of these critical facts and hints for how to deal with this.

Everyone's going to want to listen to this two or three times and go back and take notes because you put so much really critically vital information into this interview.

Closing remarks and where to learn more

And for people who want to follow you and and maybe you can mention your book again and talk about how can they learn more from you because you are a wealth of knowledge on PCOS.

So then I'm the author of Eight Steps to Reverse Your PCOS. I'm a naturopathic doctor in Toronto, Ontario, and we see patients at White Lotus Clinic and we love to help patients who have PCOS balance their hormones and improve their energy and wellbeing.

Well, that is wonderful and I hope that everyone who has access to you will do so and read your book. And I hope that we'll be able to connect and see each other at one of these upcoming conferences.

You know, with the pandemic, we got so separated. But now this is a wonderful opportunity for us to reconnect. And I can tell all of you out there that she's a wonderful presenter as well.

As you can see, we've spoken on many podiums together at many PCOS conferences, so thank you again for this wonderful interview. And you have a wonderful day.

Thanks again, Fiona. Thank you, Dr. Gersh.