



## Living PCOS Free - Ref 271

*with Rohini Bajekal*

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### TRANSCRIPT

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**Steven Bruce**

Good evening once again, welcome to another 90 minutes of great CPD. I'm completing my set this evening by finally getting the last of the Bajekal family into the studio. Previously, as you probably know, we've had orthopaedic consultant Rajiv, we've had his wife, Nitu, who is an obs and gynae consultant, and they've both been really well received. In fact, they've appeared on the show several times. This evening, however, I've got Rohini, who like her parents is a certified lifestyle medicine practitioner, and she's also a nutritionalist. I never get that right, nutritionalist or nutritionist? Nutritionist?

**Rohini Bajekal**

It's nutritionist

**Steven Bruce**

We talked briefly about her book, Living PCOS Free, when Nitu was with us last time. But Rohini is going to give us a much greater insight into the problem and how we can spot it in our own clinics, and the sort of advice that we can give as physical therapists to help our own patients. Rohini, it's great to have you with us. Thank you for coming up. And I'm really pleased to complete the set.

**Rohini Bajekal**

Thank you very much, Steven. Yeah, I think we are the only family where all three of us are actually board certified in lifestyle medicine.

**Steven Bruce**

There aren't many in the country, are there? It's a bloody hard exam to pass. I remember Nitu saying it was the hardest one she'd done and I think Rajiv said it made him sweat more than his conventional medical exams when he took it.

**Rohini Bajekal**

Really? Well, I sat the exam two weeks after I got married, so I took the textbook on my honeymoon, but I managed to do okay. A little bit every day helped.

**Steven Bruce**

So I mentioned Living PCOS Free. We didn't talk about it when Nitu was in before and before that show, I bought my own copy of it, Nitu brought one in and gave me a spare copy of it. I noticed you've got your own with you as well. So I thought what we do this evening is that you get to be the judge of whoever asks the most important question or interesting question, and we will send them a copy of the book.

**Rohini Bajekal**

I love that. No pressure everyone!

**Steven Bruce**

Do you think it's more valuable if it's signed by the coauthor?

**Rohini Bajekal**

Reminds me of that quote in Notting Hill where he says, if you can find one that's not signed, it's worth an absolute fortune. So yes, I happily will sign it.

**Steven Bruce**

Brilliant. So get your questions in and somebody's going to get a copy of Living PCOS Free after this. And really it is a very, very useful book, designed not just for practitioners, but also it's a book that patients can refer to as well. You don't have to stick to the chat lines. If you want to send your questions in by the conventional way then do, but please remember that you can still ask questions live through video, if you're watching through the website, there's a button on there somewhere which you press, Ana will sort that out, and then we'll get you up on the screen and you can talk to me and Rohini live, and it means you can develop your question a little bit further than if I've just got text coming through on my screen here. Anyway, so Rohini, the point of this evening, because we're not going to be gynae experts in the osteopathy and chiropractic world and for the physiotherapists, probably not them as well. What we're really looking for is how we spot patients who might have polycystic ovary syndrome and what we can do to either channel them in the right direction, or maybe in the first instance, give them some ideas about how they can handle the problem. Is that realistic?

**Rohini Bajekal**

Yes. And actually, physical therapists and anyone who's seen patients in person, plays such an important role in being able to spot the symptoms of the condition and also let people know that there's a possibility that they should get this checked out. Because we know that three in four women with PCOS are living with the condition unaware. So they're walking around not aware that all these symptoms that they're experiencing are actually connected. So yeah, it's really important.

**Steven Bruce**

And I guess that if typically a woman will go to her GP with a problem, she won't be going to say, I think I've got PCOS, she'll be going to say, I've got this problem, what is it? Is it a problem that too many GPs are not aware of it or is that they just don't have the time in their eight-minute consultations to think through every possible cause of PCOS?

**Rohini Bajekal**

I think it's both. Absolutely it's a huge education problem both for the wider society in general, just general people, we need to know more about this condition that affects one in ten women, it's hugely prevalent. And studies show it's one in ten women but then there are other indicators that in certain groups such as those living with excess body weight, those living with subfertility, certain ethnic groups like South Asians, the prevalence could be even higher, even as high potentially as one in four. So we know it's at least one in ten.

**Steven Bruce**

And of that one in 10, 75% don't know they've got it?

**Rohini Bajekal**

Exactly. And for those who are listening and thinking, what is PCOS, we're talking about polycystic ovary syndrome, and that is the most common endocrine condition to affect women. So the most common hormonal condition, and the reason why it's so hard to diagnose is it's a constellation of symptoms. So it can really range from person to person, there are some women with PCOS who may not have any physical symptoms at all. That's generally rare, most women do tend to, but they're going to see different people for different problems. So they might be going to see a laser hair removal specialist for the excess hair growth, a nutritionist or a dietitian for the weight aspect, because eight out of ten women with PCOS are living with excess weight and larger bodies. So they may be going to try and lose weight and things like that. And they might be seeing a personal trainer for fitness, a dermatologist for their acne, a gynaecologist for their irregular periods. And so no one's joining the dots. And that makes it really hard to get a proper diagnosis, although there is actually a set diagnostic criteria. So yes, if you can alert people to things and if they think, oh, this sounds like this could be an issue, they can go to their GP and say, could we go through the kind of the protocol to get a diagnosis. And if they're not aware, then that's why empowering yourself with the right information is so important so that you can seek that diagnosis.

**Steven Bruce**

Right. And the criteria that you mentioned, is that something that we can specifically be looking for, are they sufficiently simple for us to recognise, it doesn't rely on blood tests or scans?

**Rohini Bajekal**

It's a mixture, so I will quickly mention it because it's important. And it's not just, oh if I've got acne in my 30s, I've definitely got PCOS, there's actually a set criteria. And it was defined in 2003 by a group of experts who met in Rotterdam, and it's called the Rotterdam Criteria. So you need to have two, at least two, out of three of the following criteria to be diagnosed with PCOS as an adult. Number one, you need to have irregular or absent periods. Usually women with PCOS will have longer menstrual cycles of at least 35 days or longer. And it usually varies from month to month, and some women will have very few periods or even completely missing. So if you're having less than four periods a year, that definitely needs to be checked out. And there can be other conditions where this is an issue. For example, if someone's excessively exercising or they're pregnant, or they've got Cushing's Syndrome or various other issues, but irregular or missing periods is a hallmark, so periods are a real vital sign. Number two is clinical or biochemical signs. So on a blood test, we might have things like higher testosterone levels, higher LH to FSH ratios, those sorts of things. low SHBG.

**Steven Bruce**

SHBG is?

**Rohini Bajekal**

Serum hormone-binding globulin, I think? Sex hormone-binding globulin, had a brain blank. But the actual physical symptoms are the ones that osteopaths and chiropractors and other physical therapists should look out for. And that can be signs of insulin resistance and hyperandrogenism. So you're looking for excess hair growth. So if you've got excess hair growth, 95% of those with excess facial and body hair growth will tend to have PCOS. And so that's a really common symptom, you might notice that in areas where you may not usually have that and it might be thicker and darker. Acne that persists past teenage

years. So especially kind of on the jaw line, and that really cystic acne, it's underneath the skin and you can also have an excess of acne on the chest and back. Excess body weight. And then other symptoms that don't get talked about, much like acanthosis nigricans, where it's just kind of dark, velvety patches, and this is related to the insulin resistance. So you might see that on the neck, underneath the arms, sort of kind of folds, a greater prevalence of other skin conditions as well like psoriasis, complaints of fatigue, as well as psychological and mood changes such as anxiety and depression, and we'll talk about that but essentially, you've got the biochemical and the clinical or physical signs. So excess hair growth and acne and scalp hair loss are the signs of hyperandrogenism to look for. And then the third one only can be viewed on an ultrasound where you'll see polycystic ovaries, which sound like ovarian cysts, but they're actually distinct. And so you've got this kind of formation of multicystic follicles, or immature follicles that never quite reached maturation and they look like a pearl necklace, which sounds a lot nicer than it is. But the reason that that's not a criteria in teenagers is that it's really common to have that type of presentation in teenagers or young women. So in teenagers for a diagnosis of PCOS, you've got to have the first two, so irregular or missing periods and those signs of hyperandrogenism. But in teenagers, you ideally want to wait a while before you actually give them a diagnosis because things like acne and things can be quite common in a teenager. So there's different criteria, which we talk about in our book, we have a separate chapter on how to diagnose in teenagers.

**Steven Bruce**

But if a teenager has PCOS, is it something which during those adolescent changes they can get rid of naturally? Or is it something that's with them, and it's only gonna be formally diagnosed probably in later years?

**Rohini Bajekal**

Great question. So it can actually be diagnosed in teenagers. You can't reverse PCOS. There's no cure for PCOS, but you can put it in remission, you can manage your symptoms and that's what Living PCOS Free is about. It's about leading a long and healthy life, being metabolically healthy. But in teenagers, there are things such as the contraceptive pill and other things that can be considered but you need to consider certain things because there could be potentially higher rates of mood changes in teenagers taking the pill. These are all things that we discuss in our book, because it's all about the individual. Every individual with PCOS will have different symptoms, and it manifests differently. So it can be really difficult. And that's why don't just assume something, oh, this person is in a smaller body, they likely don't have PCOS. We know that 20% of women with PCOS, and I was one of them, have lean PCOS, where your BMI is in the healthy range or even being quite slim. But having many of the other characteristics of PCOS. So yes, it tends to start in the teenage years, that's when it gets picked up, obviously, because you notice those menstrual irregularities.

**Steven Bruce**

But looking for mood swings and acne in a teenager is not gonna get you very far, is it? Because it's so commonplace.

**Rohini Bajekal**

Exactly. So I think you've got to wait a number of years before you do things like the ultrasound scan and things like that, and that shouldn't be done on someone unless they're sexually active, but I think there

are specific criteria in teenagers. And obviously that excess hair growth and things can really impact quality of life at all ages, but when you're a teenager, it can be especially debilitating.

**Steven Bruce**

Yes. Emily's sent in a question. I think this is the earliest we've had a question on this show that I can remember, so thank you, Emily. She says, is she right in thinking that many people, many women, have cysts on their ovaries, but actually don't have PCOS? Or does even one cyst mean that you've got the syndrome? Or will it give you the syndrome?

**Rohini Bajekal**

So there's a difference between having polycystic ovaries and having polycystic ovary syndrome. And not everyone with PCOS will have polycystic ovaries. I know that sounds quite confusing. But it is distinct from true ovarian cysts which sometimes need operations. As I mentioned, these are immature egg follicles. And so you can't diagnose someone just because they have polycystic ovaries, they do need to meet two out of three of the criteria. Just because you've got polycystic ovaries on an ultrasound doesn't mean you have that, it could actually be a symptom of other things like just being young, having things like hypothalamic amenorrhea, which is when your periods actually go missing, usually as a result of a relative energy deficiency in sports. So for example, under fueling for your athletic needs, excessive exercising, eating disorders, those sorts of things.

**Steven Bruce**

We've run a couple of shows, two or three shows, in fact about various transgender issues these days, clearly this is a problem which only affects people with ovaries.

**Rohini Bajekal**

Interestingly it doesn't. I'm glad that you asked that. And yes, of course, PCOS can affect people who are transgender or non-binary, but we actually know it's not a disease of the ovaries. It does affect how the ovaries function, but it is an endocrine disorder and they were actually going to rename it reproductive metabolic syndrome, which would have been a much better term for it, and we'll come to that, because it has a wide range of metabolic effects. But they decided that would be far too confusing, so they'd just leave it as it is. But in terms that, it can affect people of all genders. And there was a great study that came out in 2021, during the pandemic, from Oxford, the author was Zhu, I put all the references on the slides, I know you're going to hand them out to everyone. It was a study of over 175,000 men, and it showed that men can also develop characteristics of PCOS as well, so things like the scalp hair loss.

**Steven Bruce**

I was going to say, I asked the question, obviously knowing what the answer was going to be and largely because, you're not going to see irregular periods in men and it'd be hard to recognise hyperandrogenism in men, because that's what they are. So how can they ever be diagnosed with this?

**Rohini Bajekal**

Sure. So they have characteristics of PCOS rather than a typical thing, but it still means that they should get checked out for things like just checking that they don't have any other metabolic issues. So scalp hair loss, central obesity, they may have a mother or a sister with PCOS, type 2 diabetes in the family,

male pattern baldness, all of this has got to be checked out if you're a man. So this is relevant for everyone who's listening. So if you tuned in tonight...

**Steven Bruce**

You're looking at my hairline as you say this, aren't you?

**Rohini Bajekal**

No but it's something that I think should be destigmatised in general and that's why we try to use the term female pattern hair loss in the book, because rather than saying things like alopecia which is actually seen as stigmatising or using terms like, testosterone is a male hormone. Actually, both women and men have testosterone, it's not limited to just one gender. And that makes it a lot a lot less stigmatising. Because as you can imagine, this is a difficult condition to live with.

**Steven Bruce**

I can and I'm sure you're gonna run through your story shortly, I think, but it would be interesting to hear exactly how it affects your life, as opposed to just running through characteristics of the hormone changes and things like that. You've run through an awful lot of different factors so far involved in diagnosis or categorization of this. And perhaps I want to reassure people that we have got a whole batch of slides that we're going to share as a handout tomorrow when we send out our usual usual email. So they don't need to remember everything, we'll only bring up the slides where we've got images which are useful to illustrate something at this stage. But you're not expected to remember everything Rohini says verbatim or scribble it all down, because we will send out a slide deck to go with this. So let me turn to a couple of other questions first of all, because I know you'd like to get on tell us about your story. Trish says, are other metabolic conditions linked to PCOS?

**Rohini Bajekal**

Yeah, great question. As I mentioned, PCOS has a wide range of psychological and metabolic reproductive effects. And it is linked to higher rates of type two diabetes, because we know insulin resistance is the main driver of PCOS. And that's contributing to a lot of the symptoms we already mentioned like that acne and things like that. And insulin resistance appears to be the main driver in at least kind of around 70%, sometimes even higher, number of cases. And over half of all women with excess weight and PCOS will develop type two diabetes by the time they're 40, which is absolutely staggering. Also if you've got PCOS, you've also got a twofold increase of gestational diabetes, which is diabetes in pregnancy and a higher risk of other issues as well as, like potentially cardiovascular disease, although we do need more studies there. And studies do show an altered lipid profile, so higher LDL cholesterol, and also things like higher blood pressure. We know that in pregnancy, there can be several complications as well. And if you're not menstruating regularly, so as I mentioned, at least four periods, you want to have a period every month, that's really what we're aiming for, then you might be given a pill to bleed because you've got higher rates of endometrial cancer or womb cancer as well in PCOS. So, yeah, we've got to get that checked out. And as I mentioned, or maybe I didn't mention, but it's the number one cause of infertility. And that's because you're not ovulating, so obviously, if you're not ovulating, you can't get pregnant.

**Steven Bruce**

One of the questions that occurred to me when you when you first mentioned that there's a link with obesity, or at least people being overweight, and PCOS, is which comes first? And the same with diabetes and heart disease. I'm a particular fan of Malcolm Kendrick and his theories, well, not his own theory but the theory that he subscribes to over cholesterol and cholesterol levels and heart disease. And I seem to remember from his first book, he said that, yes, cholesterol is associated with heart disease, but it doesn't necessarily mean the cholesterol causes it. It happens when people have heart disease. And I wonder in this case, whether those cholesterol levels or the lipid levels that you were talking about are indicative of something going wrong, and that could be the PCOS or it could be cardiovascular disease in its early stages, but do we know which one causes the other?

**Rohini Bajekal**

Well, there certainly seems to be metabolic dysfunction in PCOS, high rates of metabolic syndrome, and as you mentioned with obesity, and rates in PCOS do seem to be slightly higher than in the general population, but we also know that depending on where you look, it tends to be around seven out of ten in the UK population have overweight or obesity. So there is a high prevalence of that. But it's a complex interplay, because we know PCOS is a complex genetic trait, but it seems to be harder for women with PCOS both to lose weight and even maintain their current weight. We even know women with lean PCOS tend to actually eat less than age matched controls. So it seems to be harder. And that could be to do with the insulin resistance, that really affects obviously satiety and appetite. And androgens also have an appetite stimulating effect. And that can lead to issues such as binge eating, we know that binge eating disorder is particularly high in PCOS, it's actually the most common eating disorder, but hardly anyone talks about it, because again, it affects people with excess body weight a lot of the time and they're told, go away and lose weight. So it's this vicious cycle. And that's why my approach is very much focusing on how we can empower people with education and encourage them to follow a sustainable and healthy lifestyle for the long term. And not just the short term, sort of, lose weight at all costs

**Steven Bruce**

I imagine we'll touch on that here, but there's probably a whole show's worth of discussion to be had on the science of losing weight, isn't there? Because the conventional approach is eat fewer calories and do more exercise. So you make people hungry by doing more exercise and then tell them to stop eating. It's bound to fail at some point. A couple more questions. Several from Simon, let's do Nita's first. Nita says women with autoimmune conditions, are they at a higher risk of getting PCOS?

**Rohini Bajekal**

Oh, fabulous question. So PCOS does appear to have some autoimmune component, although it's a little complex. And we know that women with PCOS do have a higher risk of thyroid dysfunction, as an example, so Hashimoto's, as well as subclinical hyperthyroidism and potentially other autoimmune conditions as well, so things like psoriasis. But it's not that if you've got PCOS, you're definitely going to get other autoimmune conditions but as you know, with autoimmune, once you've got one autoimmune condition, you're more likely to develop others. And interestingly, there's a lot of questions that I get about celiac disease, which is an autoimmune condition. Doesn't appear that people with PCOS have a higher risk of celiac disease. But yes, there is an autoimmune component of PCOS for sure.



**Steven Bruce**

Now, Simon says he's noticed that in his patients with PCOS, they have more lumbar spinal issues. Could this be connected to the irregular swelling of the womb, stretching the uterine ligaments with heavy periods when they eventually arrive? Sorry for his ignorance. And he also says, is there a link between PCOS and endometriosis?

**Rohini Bajekal**

Oh, you don't have to be sorry for your ignorance, I'm very happy that you're here and asking great questions. And there isn't a link between PCOS and endometriosis. Endometriosis also affects about one in ten women, and is a really complex, painful condition, one of the hallmarks is these painful and heavy periods. Although not all women with endometriosis have that. Interestingly, pain is not a feature of PCOS. So some women with PCOS do have painful periods and report that, but it's not actually documented in terms of we don't have the studies to show that and it's not a recognised feature of PCOS. And in terms of what you mentioned about the lumbar spine, my father's an orthopaedic surgeon, I don't want to say I know something if I don't, but what we do know is that women with PCOS do tend to have, again, higher markers of inflammation, higher levels and more accelerated levels of things like osteoarthritis. So I assume that there is potentially something to do with that excess inflammation, which we can change to an extent through our diet and lifestyle. But I don't know specifically about the effect on the lumbar spine.

**Steven Bruce**

We missed a trick, didn't we? We should have heard Rajiv and Nitu and you all here together, so he can answer that question.

**Rohini Bajekal**

Well, I educated my father about this one. I sent him the study about the osteoarthritis and I said, you've got to tell your patients with PCOS. As you know, this holistic approach is so important. And when you're seeing someone who does have these issues, it's about reducing that whole body inflammation that's so prevalent in PCOS.

**Steven Bruce**

Yeah, and I think you're singing to the choir as it were, if that's the right expression, when you talk about holistic approach, because I think that's the approach that most osteopaths and chiropractors certainly want to take and try to take. It isn't just about addressing the one symptom and we would argue that too many GPs will just give you a pill for that problem. We might even argue that the poor old physios who work in the NHS, they aren't allowed to take that holistic approach and they end up giving you the standard set of exercises for that little problem. And none of it actually addresses the whole spectrum of what's going on in the patient. Tell us about your your journey through PCOS or with PCOS.

**Rohini Bajekal**

Yeah, so as you'll see in the pictures, with my own journey with PCOS, it really started when I was at university, so I was actually doing my first degree, it was at Oxford University and that was a period of intense pressure and stress in my life. I actually had been okay when I was a teenager. I did suffer with

heavy periods. I started to take the pill for those reasons and to manage it, and I would take it back to back so I didn't have regular bleeds and things.

**Steven Bruce**

Can I stop you there?

**Rohini Bajekal**

Yeah.

**Steven Bruce**

Because I'm going to ask you a question as your osteopath. If I were treating, let's say a teenage girl, I would as delicately as I could, bearing in mind it might be an embarrassing subject for a young woman, ask about periods. Is the average young girl going to know that she has heavier periods than is normal? Because for some people, it's something they keep very quiet and keep to themselves, isn't it?

**Rohini Bajekal**

Absolutely, such a great question.

**Steven Bruce**

Do I get the book?

**Rohini Bajekal**

All health professionals should be asking about periods. It was actually the American College of Obstetricians and Gynaecologists that said, periods are the fifth vital sign and we need to be asking about it. If you go in, you can be missing that someone's pregnant or that then they've lost their period or any of these things. And that's why education about PCOS and about periods in general, that's what the whole first bit of our book is about, it's just about periods as a vital sign and actually understanding your cycle, what is the healthy menstrual cycle. Most women don't actually know, and don't even know how to track their cycle. So it starts with tracking your cycle from an early age. It can just be as simple as writing it down in your diary, but most teenage girls, sure they may not know. In terms of pain, unfortunately many women do have painful periods, and they struggle with painful periods. We know that so many days of work are lost due to painful periods.

**Steven Bruce**

But pain is not a factor in PCOS?

**Rohini Bajekal**

No but you can still have painful periods. As I mentioned, you could have PCOS and endometriosis. Or you could have PCOS and painful periods. Many women do get menstrual cramps and Spain just introduced menstrual leave for the first time, and it can be debilitating. And it can really interfere with homework, with quality of life and all of these things. Sometimes things like ibuprofen and things are not not enough. So there are other medications, and you mentioned before about taking a pill and look, I totally agree, the first line of treatment in PCOS is lifestyle management, that is actually defined in the

national and international guidelines. It's not woowoo or out there to say lifestyle is the first line of treatment.

**Steven Bruce**

Is in the NICE guidelines?

**Rohini Bajekal**

It is and so you want to have, diet and lifestyle changes. However, that often doesn't get translated in actual care because of lack of time and maybe lack of knowledge. Telling people to go away and lose weight, come back when they want to have a baby, just doesn't cut it. But I also think there shouldn't be medication shaming. I think that some people will be able to manage their PCOS using diet and lifestyle and other women will need extra interventions. Maybe metformin, because of the insulin resistance, or assisted fertility treatment and I think that's why, just trying to understand the individual patient and where they're at. But I certainly found, when I was a teenager, my menstrual cramps were interfering with my homework, and I was a very studious person, I wanted to achieve, so it enabled me to get through my exams, but I was generally fit and healthy, really well. And I attribute that to my parents' amazing cooking. I grew up essentially eating a very healthy South Asian diet of lots of things like oats and fruit and vegetables and pulses, and I was active, walked the dog and I never had any issues.

**Steven Bruce**

It can't have hurt that you had an obs and gynae consultant as a mother as well.

**Rohini Bajekal**

I did. I did. Although I have to say I wish I'd listened to her. Doesn't everyone always wish they'd listened to their mom, their mom is always right. But it took me many years before I actually had my official diagnosis because it was when I was at university doing my final exams at Oxford, that's when I really started to get these rather horrific symptoms, as you'll see in the picture, with the cystic acne that covered my entire face and was incredibly painful. It was sort of under the skin.

**Steven Bruce**

We should bring that picture up, Justin, if we can.

**Rohini Bajekal**

Yeah, if we can. And I would get scalp hair loss. It's normal to lose about 100 hairs a day, I was losing chunks of hair from my head. And I had severe anxiety. So we know mood changes are more common in PCOS. In fact, there was a study showing that women with PCOS are seven times more likely to take their own life. So it's a very serious condition. Obsessive compulsive disorder, anxiety and depression are all really common. And I was suffering with severe anxiety. A lot of it was to do with these symptoms, I noticed all of this coming up and I was also dealing with the excess hair growth and everything. And these were things not even my best friends knew about, I kept it completely hidden, because when you're 19 and you're going through this, you're kind of like, how is this happening, my body's broken. And my mother did point out when I was finishing up at university that it looks like it may be PCOS, but I thought PCOS only affects people who had excess weight and I thought that doesn't apply to me. I obviously didn't want to listen to her, so it took me ten years to get a diagnosis after that because I just really put it

out of my mind and I kind of soldiered on but I had a real issue. Every time my lifestyle took a hit for the worse, so I was really stressed at work or I was perhaps drinking too much alcohol, my symptoms would flare up and even taking the contraceptive pill didn't really manage to make these symptoms go away. I wasn't really able to get a handle on it. Every time I tried to come off the pill and manage it through diet and lifestyle, or manage my symptoms, I didn't know it was PCOS, but I knew that it wasn't normal as such, I couldn't cope because I would see the spots flare up and I would feel horrified because, yeah, we live in a society where women have to adhere to unrealistic beauty standards, you're expected to be as smooth as a dolphin and have a head full of hair and no hair anywhere else. It can be really debilitating.

**Steven Bruce**

So your acne here is not just jawline, is it?

**Rohini Bajekal**

Yes, it was all over. And I did have a lot concentrated on my jawline and my chin. And I saw a dermatologist, I went to see a naturopath.

**Steven Bruce**

Well, this was going to be my question, you must have gone first, I imagine, to see your GP, who said what? Here have some tetracycline or something?

**Rohini Bajekal**

Exactly. So I was put on antibiotics three times. That did nothing. Because obviously, with hormone related acne it's only going to help to an extent, it's not actually going to treat the root issues. And I tried to do various things, I eliminated different food groups, I was trying to experiment myself and nothing really was able to stick because I didn't really know much about nutrition, I didn't really know any evidence for how I could manage this myself. I would try and hit the gym, that would help to an extent then I'd give that up, then I'd try a juice cleanse, that wouldn't work. So it was this vicious cycle of trying everything I could and seeing different health care professionals, as I mentioned, the naturopath, the GPs, dermatologists. And it was only in my mid-20s, when I had this incredible opportunity to move to India and actually forge a new career in the nutrition space, I was actually working still on the marketing side, I had a totally different change of career, and when I got there my lifestyle pretty much changed overnight. I'm not suggesting everyone with PCOS moves to India, but it opened my eyes to the power of lifestyle and the impact of what we put on our plate and what we put in our mouth three times a day. I suddenly had gone from eating a diet that I thought was healthy, but it was actually rich in ultra-processed foods. Remember that 66% of the British diet is made up of ultra-processed foods. So these are food-like substances, they're not really real food. I was eating things like protein bars and breakfast cereals and all the usual kinds of things. Maybe with some fruit here and there, but I was also scared fruit, I thought it had too much sugar. Little did I know. And when I moved to Mumbai, I started to eat essentially what was the local diet, obviously staying away from the samosas and all of that stuff. But I was eating fruit, vegetables, whole grains, like brown rice, lots of pulses, like dal, and some nuts and seeds and I felt a different person, Steven, honestly. My skin started to clear up, my anxiety lifted and for the first time in my life from sleeping six hours a night in frenetic London to equally frenetic Mumbai, but a lot of things have changed. I think also the light exposure there helped me.

**Steven Bruce**

I was gonna say that would have been one possible factor, wouldn't it?

**Rohini Bajekal**

A huge thing. We know that women with PCOS do have circadian rhythm dysfunction. And so the winter months do, even for me now, I find that the winter months can be especially hard and I've got to get out there first thing in the morning, expose my eye to natural light, that helps with the sleep wake cycle. So I started to sleep eight hours a night, I just had energy for the first time ever I had more energy than I had when I was 18, 19 and I couldn't really figure out what it was. And that started this incredible journey of kind of really starting to love myself, feel comfortable and at home in my own body, I met my husband out there and it changed the course of my life. I realised that I had to go and become a nutritionist and I wanted to go and help other people to feel this.

**Steven Bruce**

So the journey is from you drinking alcohol and eating crap food, having PCOS symptoms to now having a dog?

**Rohini Bajekal**

To having a dog. Yeah, exactly. I don't really like showing before and after pictures too much, because obviously I actually think a lot of what we know just from looking at someone, yes, you can get a lot of signs and indicators of what what might be going on, but it doesn't tell you everything, it doesn't tell you the whole picture. And actually when I was fit and healthy and I thought that I was doing really well is actually when I got diagnosed with pre diabetes, when I was actually a nutrition student. So I had started to include a lot of eggs in my diet...

**Steven Bruce**

You're not the typical shape, are you, for someone you expect to be pre-diabetic?

**Rohini Bajekal**

No, and that's why I would always say to any physical therapist, don't just discount someone based on their weight. Don't think that someone who's got excess weight, all their symptoms are to do with that excess weight and don't think someone who's thin doesn't have health issues, especially South Asians. We know that these issues start more aggressively at a younger age. And my father had type two diabetes. I'm sure he told you all about how he managed to put that in remission. But yes, absolutely. It was only when I personally adopted a whole food, plant based diet, which was really getting rid of ultra processed foods and for me animal foods that I actually saw my HbA1c come down to normal levels and I was able to get control of that. Now my approach is not to tell everyone to go 100% whole food, plant based, eating just plants, but you can thrive eating those. And what we know from looking at the research on PCOS, the more plants you include the better, so trying to add in a diversity of plants, only one in ten UK adults meets the fibre recommendation of just 30 grammes a day. One in ten. I mean, that is staggeringly low.

**Steven Bruce**

One in ten's coming up quite a lot in this conversation.

**Rohini Bajekal**

Yeah, one in ten is a bit of a pattern. But to put another spin on it, we're only meeting 60% of the fibre recommendation a day. So we're getting about 17, 18 grammes when we should be getting 30 grammes minimum.

**Steven Bruce**

Now there is a danger, isn't there, as there is with all of us saying that I did something and it fixed me therefore, it must be what fixes everybody else.

**Rohini Bajekal**

Absolutely. That's why our book, whilst I have my story in it, the book is based on science, we have over 500 scientific references in it. And that's why it's important to go with guidelines and actually look, and as I mentioned already, it's not one size fits all. However, a diet that's rich in anti-inflammatory plants won't only just helped with the short-term symptoms of PCOS, like the acne and excess hair growth and those things from the lifestyle side, but also the longer term metabolic effects. You need to have a dietary pattern that is sustainable, that's joyful, and most importantly, combats that inflammation in PCOS. And it's not just a quick fix.

**Steven Bruce**

You've been a nutritionist for how long now?

**Rohini Bajekal**

About five years.

**Steven Bruce**

So in that time, you've seen a lot of people take your advice, and hopefully they take it, rather than just listen to it and then go away and carry on doing as they already wanted to do. So you will have seen the effect of this on your own patients, as well as in the research papers that you've already mentioned. And there's quite a few of those which are cited at the end of the handout that we'll send out to people as well, isn't there? There's lots of good, hard evidence behind what you're saying this evening. And I only emphasise that because there is always that tendency to think, oh, there's someone coming in because they've got a bee in their bonnet about eating green leafy vegetables, or whatever it might be, and it's good to know that there is science behind it.

**Rohini Bajekal**

No, it's really important. The only reason I share my own personal story, because it's obviously just equals one, is that as health professionals, the more we share our own stories, the more vulnerable we are, the more we connect to others. And even with each other, the more we destigmatize these conditions, and also our patients and the people in front of us realise we're also human, we don't have it all figured out, we're still on our own journey, figuring things out. And that's really important. And health professionals can also struggle with PCOS and other situations like that. It's not that it only affects a certain group of people.

**Steven Bruce**

I'll probably forget to do this, so hopefully, you'll remind me, but we should come back to the whole communication thing and the business of stigma before we close this evening. Lucy says, is there a particular time or way to measure testosterone, as hormone levels do fluctuate so much?

**Rohini Bajekal**

So I'm not an expert on this, straight off, I'm not a medical doctor. It's important to go and see a gynaecologist because there are a variety of things that you want to measure. I already mentioned sex hormone-binding globulin that tends to be low in PCOS and we know that plant-based ways of eating can actually help raise SHBG. With testosterone, I don't think there's a particular time of day, but I always usually recommend hormone test first thing in the morning, especially because you're usually doing other things at the same time, like fasting glucose, thyroid tests, and so on first thing in the morning.

**Steven Bruce**

I wonder actually, if we might not have covered that when I spoke to your mother, Nitu. So it may be that people can go back and look at the broadcast we did with Nitu.

**Rohini Bajekal**

Yeah. We actually have a list of tests to get done and how to ask for that. But your primary care provider, your GP and things will hopefully be able to run that for you.

**Steven Bruce**

Lucy's also asked a very pertinent question, can PCOS start at any stage in life, or does it always start as a teenager?

**Rohini Bajekal**

It doesn't always start as a teenager, but it usually starts in teenage years. It's a disorder that affects reproductive age women. However, it can also have implications for the menopause. We know that women with PCOS tend to have a delayed menopause of two years, and they tend to still exhibit certain symptoms in the menopause at a higher level. So excess hair growth and things like that. But it's really interesting that PCOS appears to delay menopause by a couple of years.

**Steven Bruce**

Vlad says, it seems that dietary recommendations are to go plant based both for general health and for PCOS. What about people who can't go whole foods, plant based because they can't eat grains, beans, pulses and have to eat meat products for protein?

**Rohini Bajekal**

Well, that's why I absolutely agree that it's no one size fits all. And there's no one diet for PCOS. But unfortunately, while the guidelines say that we need to have a diet that helps us optimise these parameters and they express an emphasis on whole grains, pulses, fruit, vegetables, nuts and seeds, they don't prescribe a specific label. And so if you can't have certain foods or you've got multiple food intolerances or allergies, then absolutely, but there should still be an emphasis on including a diversity of plants in your diet, rather than following something like a ketogenic diet. I really never come across

anyone in my own practice who's allergic to grains, beans, all of these things. And if there is someone who's got lots of kind of overlapping allergies, then the best thing they can do is see a registered dietician who can prescribe them a meal plan, but I do work with clients, for example, who have allergies to nuts, or they cannot eat gluten, and they can still eat a variety of foods. So for example, if they're cutting out gluten, which obviously eliminates some of the biggest contributors of fibre to our diet, like whole wheat bread and pasta and things like that, I encourage them to include intact, unprocessed gluten free grains like millet, buckwheat, brown rice, quinoa, those sorts of grains in abundance. But yeah, there's no reason usually. And often with food intolerances, people think that they can't eat certain foods, it's often to do with the gut dysbiosis and once they start gradually increasing fibre, they end up being able to eat the foods that they previously found they weren't able to, and it gave them discomfort. There's a big difference between intolerances and allergies.

**Steven Bruce**

I'm at risk of embarrassing myself here, but I suspect I'm not the only person who struggles with understanding the dividing line between a nutritionist and a dietitian.

**Rohini Bajekal**

So dietitian, they do have more years of training. So it's a protected term. So registered dietitians. It's a protected term. And they tend to work in clinical settings, so often in the NHS or in hospitals. And they generally prescribe diet plans and things for specific issues. So for example, if someone's had major surgery, or someone has an eating disorder and as in inpatient care, or has type two diabetes and they need to know how many grammes of carbohydrates to have. There are more and more dieticians who are getting more interested in the preventative aspects of using diet and lifestyle modifications, and there are more and more dietitians who are open to that holistic way of treatment. However, it's not something that is often taught. Whereas nutritionist can really vary. I have a Master's of Science in nutrition and food science. And I think it's also really important to ask people what their qualifications are. I totally think that's clear, because you can call yourself a nutritionist and have a three-hour course on the internet. So it's really key to ask them what their qualifications are.

**Steven Bruce**

Collie says, are there any links to taking the pill as a contraceptive earlier in their life that makes people more at risk of developing PCOS?

**Rohini Bajekal**

No, absolutely not. In fact, the pill is an excellent management therapy for PCOS, it can actually help reduce endometrial carcinoma, as well as the distressing impact of PCOS on the skin and hair. If you're walking around with the kind of acne that I was having and the hair loss, it can be really, really distressing, it can impact overall social functioning and quality of life hugely. And we know that sexual and relationship dysfunction is really high in PCOS. So yeah, absolutely with the pill, it's a really safe and proven form of treatment. We have a whole chapter about pill myth busting in our book, but there's no link to show that that increases the prevalence of PCOS.

**Steven Bruce**

Mickey says, how much is improvement in diet with PCOS also due to one's genetic inheritance?



**Rohini Bajekal**

I'm not really sure exactly what that question means. I think that's to do with every single person responds differently to diet and lifestyle modifications. And as I mentioned, diet is the cornerstone, but it's not the only thing. You also need to be managing your stress, moving your body regularly, spending time with loved ones and your community, avoiding excess alcohol and smoking, getting enough sleep. There are five other pillars besides diet when it comes to lifestyle medicine. So it will vary person to person. That's why I prefaced everything I said by saying we need to be evidence based. Lifestyle medicine is about following evidence-based approaches.

**Steven Bruce**

What do you do to manage stress? What do you advise to manage stress?

**Rohini Bajekal**

So everyone manages stress differently. If I told you, Steven, go off and do some yoga, you might say, that's really going to stress me out, I don't want to lie still and get into downward dog. But you might say to me, what I really enjoy is playing golf, that really is going to relax me and it's really going to help me de-stress. So everyone has a different thing that helps them de-stress. There are proven things that help and osteopaths and physical therapists will definitely notice perhaps a high sympathetic tone in people with PCOS. So, we know that there tends to be cortisol dysregulation in people with PCOS, they often find that there's markers, like higher blood pressure, excess body weight, all of these sorts of things. And generally running on adrenaline, that's one of the... It's hard to kind of narrow it down, but it's getting anxious easily. And there's good kinds of stress, like the stuff I felt before the lights went on here. But then there's the bad types of chronic stress that we want to manage. And I do recommend various things to my patients. I recommend something as little as ten minutes of meditation or mindfulness a day, first thing in the morning, if they've got little kids, sometimes, once the day's started, there's never going to be time. So ten minutes before the whole day kicks off, just to kick things off. Trying things like psychotherapy, yoga, and massage, any kind of physical touch, mind body methods. We know that yoga has actually been shown to reduce symptoms of hyperandrogenism, it's quite incredible, in PCOS. So all different things, even things like counselling, volunteering, playing with your cat or dog, all of these things can help.

**Steven Bruce**

I hate to admit this, but I think the Americans are way ahead of us in this, weren't they? Because for years, it's been a marker of sort of your status that you have a therapist, meaning a counsellor of some sort in the States, whereas over here, you feel slightly embarrassed to admit to that probably,

**Rohini Bajekal**

I think I'm glad to see that's changing more and more now, and people are actively looking after their mental health in the same way that we approach our physical health. There's often this idea that one one is more important than others. But if that doesn't work for you, it could be even just talking to a loved one, a friend, because as I mentioned, these symptoms are not easy to talk about with people. And that's why the dots aren't joined. And that's why physical therapists can actually help the patient in front of them to perhaps recognise some of these signs or at least consider seeking help for those, because they may not be aware themselves that there's a reason why they are struggling with these issues.

**Steven Bruce**

Well, I think I've just lost a bet with myself, because while you were talking, I had a little bet that within 30 seconds, someone would send in a request to see me doing a downward dog, which I'm not going to do, and I thought it would be Robin. A different Robin says, do people with PCOS do well on a pure carnivore diet as appears to be the case with some other autoimmune conditions?

**Rohini Bajekal**

I think that might be the worst question. Sorry, but carnivore diet?

**Steven Bruce**

No book for you then, Robin.

**Rohini Bajekal**

Carnivore diet. Oh, my goodness, goodness. Where do I start? I could literally be here all day. All the data is terrifying. There are young men dying of heart attacks on a carnivore diet. The only positive thing I can say about a carnivore diet is that it has eliminated ultra-processed foods, which do disrupt the gut microbiome and are awful, but it has a negative impact on every single other parameter. Even Paul Saladino, Dr. Paul Saladino, he's one of the big proponents of this, has included a huge amount of plant foods in his diet due to adverse lipid profile on the carnivore diet. It is an absolutely unethical and unsustainable way of eating in the midst of a climate crisis as well. So there's absolutely no recommendations for a carnivore diet. If you have an autoimmune issue, you need to be fueling your body with anti-inflammatory plant foods, not foods that completely lack fibre and lots of micronutrients. No, absolutely a no for me.

**Steven Bruce**

So not sitting on the fence with that one?

**Rohini Bajekal**

No, not sitting on the fence.

**Steven Bruce**

Zojo says, do you recommend supplementation with EPA and DHA in order to increase the omega-3 index for reducing inflammation?

**Rohini Bajekal**

Oh, great question. That's a really good question. Yes. Again, I have to emphasise, everything that we're talking about, we need more research in PCOS, we really do, but we did include a study in our book showing benefits of omega-3 supplementation, DHA and EPA about 500 milligrammes combined. And I recommend an algae derived supplement, particularly as fish oils are not indicated in PCOS. A lot of them we know that, especially the bigger fish, there's higher amounts of bio accumulation, higher amounts of toxic heavy metals, mercury and these sorts of issues. So going from a clean source, an algae derived omega-3 is one of the best things you can do. I do take one myself personally. That has been shown to help with inflammatory acne and also with other signs of hyperandrogenism. And in terms

of fertility, if you're trying for pregnancy or you are pregnant or breastfeeding, then it's really important to take DHA and EPA. And you can also get plant-based omega-3 which is the alpha-linolenic acid and we do convert some of that to DHA and EPA, how good you are at converting that varies from person to person and it also depends on the ratio of omega six in your diet as well. But some really good sources that I recommend everyone includes things like ground flaxseed, which is a really budget friendly source, I have one to two tablespoons a day. And that gives you a really good amount of alpha-linolenic acid that will help with skin, hair, all of these sorts of things. And then walnuts, hemp seeds, chia seeds, these are all fantastic sources, and there are some amounts in dark leafy greens and other foods as well.

**Steven Bruce**

Okay, well, my wife Claire will be pleased to hear about that, because where we live in France is covered in bloody walnuts. All over the place.

**Rohini Bajekal**

Oh, amazing.

**Steven Bruce**

Yeah. But we have to be careful with them because the dog actually managed to find one that had rotted slightly and actually they can be seriously dangerous to animals eating them, because they have a neuropathic effect on them. And you can't teach a Labrador not to eat things, it just doesn't work. Nita says, how do you manage patients who have PCOS, but are put on steroids?

**Rohini Bajekal**

Yes, it doesn't make certain things more difficult, particularly, risk of type 2 diabetes, and other issues and weight gain. It's really about meeting the patient where they're at. Sometimes when I'm talking, remember that what I'm saying is where I'd like people to be. I'd obviously like people to be getting ten to 13 portions of fruit and veg a day.

**Steven Bruce**

A portion being what?

**Rohini Bajekal**

A portion is what you can fit in the palm of your hand, 80 grammes, if you're an adult. If you're a child, it's what you can fit in the palm of a child's hand, that would be a portion for a child. And it can be as little as, for a little child, it could be like a few pieces of a satsuma or a couple of cherries. For an adult, it's going to be things like maybe two satsumas, or a medium size apple, or about six florets of broccoli, about that amount. The Japanese actually get about 30 in a day, and they recommend close to that. I think the French recommend nine a day. The UK is five a day and we know that only 17% of teenagers get that and about a third of adults get only one a day. So yeah, we're really, really falling behind.

**Steven Bruce**

For years they used to say five pieces of fruit or vegetable a day without defining what a piece was. It's nice to know what a portion is.

**Rohini Bajekal**

What you fit in the palm of your hand, that's why I recommend. With this question about steroids, it's really about meeting the patient with they're at. And I say this for everything. There may be patients of yours who are on a real budget. You know, we're in a recession right now. Really looking at what can you do, so I never say everyone should be eating organic, whole plant foods all the time. That's really not practical. I actually do a lot of community work. I work with people from low income households. So I actually encourage them to use some frozen fruit and vegetables, and actually frozen blueberries have higher levels of antioxidants, specifically anthocyanins which we know are protective against things like Alzheimers disease and dementia, than fresh blueberries. So you don't have to feel that one is better than the other and actually using things like tinned or canned legumes, like chickpeas, giving them a good rinse, throwing them into dishes. Adding them into a stew or soup, maybe some cannellini beans in your minestrone soup, or adding in a can of black beans, rinsing it and putting it into a wrap. There are so many easy ways to introduce pulses. There's a great brand called Merchant Gourmet which do pre-cooked grains, which is really good if you're leading a busy lifestyle as I often do. I mean, I think I'm gonna get home around 11:30pm tonight. So I always make plans and plan my week a bit ahead, look at where I can batch cook and make things easy for myself. And I recommend clients do the same.

**Steven Bruce**

Is there some advice in your book about specific recipes, or?

**Rohini Bajekal**

Yeah, so part four is totally dedicated to nutrition. It has things like a shopping list, how to stock your larder, practical tips for things like when you're eating out or on holiday, and it's got over 30 of my own recipes in there, which are all totally plant based, can be made gluten free, oil free, low in sugar, oil and salt. That's what I called SOS, salt, oil and sugar. These are things we want to minimise and actually maximise things like lemon, lime, herbs and spices, which are the most antioxidant rich of all food groups, and really lots of vinegars and things like that which don't add extra calories but can add lovely flavour to dishes.

**Steven Bruce**

Me, whoever that is, says, could you talk about the connection between PCOS and infertility?

**Rohini Bajekal**

Wonderful. So that's really getting to the crux of the issue. Eight out of ten women with PCOS do struggle to conceive. But the good news is the overall fertility across the lifespan doesn't seem to be decreased in PCOS, it's just that the journey might take longer. And often that's to do with the fact that women with PCOS are not ovulating or they're ovulating very infrequently. Sometimes, there are some cases about 20% of women with PCOS do have regular periods, that it's not doesn't automatically mean that they're ovulating, but it's a good marker. And there are tests that you can do obviously, like the progesterone test and things like that. But the good news is that most women who want a baby do end up going on to have one. And it's important to remember, not everyone, obviously, with PCOS is making fertility their goal. But it's important to find out if that is the case and empower them with that information rather than, the main thing most of my clients remember is that moment in the chair where the doctor told them, you're not going to be able to have a baby or you're going to struggle to conceive, and that sticks in their head

for years, and they carry it from the time they're a teenager and they've carried that stress with them. With regards to PCOS, there are other options for assisted fertility treatments. There are things like IUI or ICSI, where you use letrozole, or IVF. But really, you want to try and get as healthy as possible prior to pregnancy in PCOS and dietary and lifestyle modifications can work a charm. I have personally in my clinic, so I work one to one with clients, providing nutrition and lifestyle advice, I have lots of GPs, I actually have some osteopaths and things who recommend me, and I've worked with women where they have been trying for a year, maybe two years, and changing their diet, making these changes and looking at them, I look at them holistically, I look at them, we're all holistic beings, looking at all these pillars. Could they add in some time for some stress management techniques and breathing, some breath work? Would that work for them? Could they spend more time with their friends, meeting them for a drink? Could they cut back on the coffee? We know that with a cortisol dysfunction, we don't want to be having a lot of excess caffeine. So switching that out, and especially in pregnancy, it's something we want to really keep on the low. And so could they swap that out for something else, maybe another warming drink? Can they try and move more, even walking or strength training particularly helps with glucose disposal. And they have found that they're able to conceive and get pregnant and it's not just about getting pregnant, we want to have a healthy pregnancy. And because we know that if you've got PCOS, you have a far higher risk in pregnancy, higher risk of preeclampsia, which I think Kim Kardashian had, and that made it really famous and they showed lots of pictures of her and the media was horrific about it.

**Steven Bruce**

Because we were short of pictures of Kim Kardashian, I understand.

**Rohini Bajekal**

Unfortunately, she was absolutely mocked. I'm not a fan of hers, but she was mocked for having this preeclampsia, which is pregnancy related hypertension. Gestational diabetes, again, you've got at least twice the incidence in PCOS. Large for their age babies, macrosomia, and other issues as well. Women with PCOS are three times more likely to miscarry, which is really hard to understand exactly why that is. It's mostly observational data at this point. And it's hard to know exactly why that is. But for the question about this, infertility has been actually associated with having as big an impact on quality of life as a cancer diagnosis and as serious depression. So it should be taken really seriously.

**Steven Bruce**

Well, there's huge pressure on women, isn't there, in that regard? There's societal pressure as well as hormonal pressure with the drive to have babies. You, I think, said, did you say 80% of people with PCOS will struggle to conceive?

**Rohini Bajekal**

Will struggle to conceive. It takes them longer.

**Steven Bruce**

Do you know how many people who don't have PCOS struggle to conceive? What's the proportion there? Because they aren't the only people.

**Rohini Bajekal**

Yes, of course. It's one in eight couples have, I think, infertility and it could be related to PCOS or unexplained infertility. There are other factors obviously as well.

**Steven Bruce**

But it's clearly a lot higher in PCOS.

**Rohini Bajekal**

It's a lot higher in PCOS and in other conditions as well, like endometriosis as well. And so if you've got PCOS, you shouldn't wait the full year before seeking a GP's help. If you've got PCOS, and you know that it's going to take longer, then get a checkup at six months, get a semen analysis, get all your tests done. Just so you know, okay, is there anything else we're dealing with, are your fallopian tubes okay, is there any other issue, are there fibroids or anything else? Just to rule out anything else. So six months for women under 35. And over the age of 35, you should get a checkup anyway after six months. And if you're 40 go and see your doctor immediately, don't waste any time.

**Steven Bruce**

In your experience, what will the GP do if you go along and say, I'm worried I've got PCOS? Will they respond the way you want them to?

**Rohini Bajekal**

It really depends GP to GP. There are some amazing GPs out there and again, it really depends on the person. The NHS has quite a strict cutoff for BMI, I think it's 30, so if your BMI is too high, which a lot of women with PCOS experience, they're not actually eligible for fertility treatment on the NHS. And so that can be really devastating obviously. So often it's about achieving that diet and lifestyle changes to try and get to that weight.

**Steven Bruce**

I remember reading that that BMI criterion is also postcode dependent as well, that one CCG might have a completely different measure.

**Rohini Bajekal**

Oh well remembered from our book. Yes, we mentioned the postcode lottery in there and actually how this can actually impact women of worse socioeconomic means and also from certain ethnic minority backgrounds. Women who have dark skin or certain backgrounds, like South Asian or black, actually don't get the fertility help they need. And there's a lot of disparities in care when it comes to ethnic groups. We actually have a whole chapter on how that affects women with PCOS. And they're kind of conceived by people as having larger families, so it doesn't really matter if you haven't been able to have a child and all of these sorts of awful things, that it needs to be treated really sensitively. But yes, it does. It is higher in PCOS. It's the number one cause, PCOS is the leading cause of infertility globally. So it's a huge, huge issue. But yes, as I mentioned, most women will go on to conceive, and it might just take them that bit longer. But it's important to get the levels checked out and see. The most important thing is to obviously be having regular periods. If you're not menstruating at all, you can't. Yeah, lots of women that I see, they say to me, I've been trying for two years. Well, how many periods have you had in that

time? I've just had a handful. So it's obviously going to take a lot longer to actually get to the point where you're ovulating regularly, which you can achieve by, again, lowering that insulin resistance and normalising those hormone levels through diet and lifestyle and potentially with some medication, things like metformin and other things that can be helpful actually for fertility. Oh and vitamin D supplementation. Got to check all of those things. Again, it's really wide ranging,

**Steven Bruce**

I think virtually everybody I've had on the show has said vitamin D supplementation, because it's just so important.

**Rohini Bajekal**

Women with PCOS appear to be particularly deficient and vitamin D seems to help with insulin sensitivity.

**Steven Bruce**

Why are they particularly deficient?

**Rohini Bajekal**

It's to do with how it's metabolised. It's kind of a complex answer. I'm not a vitamin D expert but from what I've read in the literature, it's to do with how it's metabolised. And obviously, people like me who've got darker skin, well, we're even more at risk. So every time I've been checked in the past, I've always been vitamin D deficient. So I do take a slightly higher dose and make sure I book in those summer holidays.

**Steven Bruce**

Georgina says, breastfeeding has a protective effect against developing type 2 diabetes for the mother. Is there any evidence that breastfeeding could help with insulin resistance related to PCOS for the mother as well?

**Rohini Bajekal**

Logically, it would seem yes, but we just don't have the studies on that. So I just don't want to add to the conjecture. But yes, obviously, breastfeeding, there was a study showing that women with PCOS can sometimes find it harder to breastfeed, and that's again to do with those higher androgen levels that can affect so many different things. And so many studies that we still need more information on. I know that this won't especially applied to physical therapists, but part of the reason for even finding fertility issues challenging is the sexual and relationship dysfunction. So pelvic floor dysfunction, that could make sex more painful. And obviously, that can be really not only just embarrassing, but another stigmatising issue to ask for help about and it can affect quality of life. And the level of hyperandrogenism is actually correlated to the level of sexual and relationship dysfunction. So obviously, that can impact intimacy and relationships between partners as well. So yeah, this is something physical therapists can be more aware of.

**Steven Bruce**

A healthcare professional in this field, I'm sure told me recently that there is a renewed feeling that formula is okay for babies. Is that something that you've looked into it or do you know about?

**Rohini Bajekal**

I do advise women who are pregnant and who are planning to feed their baby, but it's not something that I would want to like weigh in on with my opinion, especially since I don't have children personally and I think there's so much judgement towards women. And PCOS is a great example of that. So I really do think it is such a, we need more support for women clearly to breastfeed and to have that support right from the time before they're even pregnant. And to have that ability, not everyone can afford a lactation consultant when things go wrong, clearly, and the NHS is so squeezed by the burden of chronic disease in this country that there's even less resources for this. But I ultimately feel that there's so much judgement on mothers and on women in general that it's their decision on how they feed their baby.

**Steven Bruce**

Somebody who's called A according to my list here asks, what is the bioavailability of plant proteins versus animal proteins?

**Rohini Bajekal**

Oh, this is a great question. So there are some studies showing a reduced bioavailability in certain plant proteins when you look at the overall index. However, there's a lot of confusion about protein and plants. All food, apart from actually dietary collagen, all food contains all nine essential amino acids. There's this idea that plant protein is lacking or you have to combine proteins and plants, and that was because of very outdated diet that came about in the 1980s, where they said you have to combine low thiamine foods with like low lysine foods. So rice and beans needs to be eaten together. Whereas actually we cycled through amino acids on a kind of 48-hour basis. So if you're eating a variety of plant foods, and paying attention to plant protein rich foods, you're going to be getting enough protein and fat. There's a study that showed about 70% of plant-based eaters actually get more protein than they need. However, I always recommend going for really rich sources of plant protein, particularly soya, soya is a fantastic food for PCOS. Things like quinoa, soya, these are brilliant foods and have a comparable protein index to animal proteins, such as chicken and things like that.

**Steven Bruce**

So you're a fan of soya milk, for example, are you?

**Rohini Bajekal**

Yeah, soya milk is good. I always prefer even more minimally processed soya. So I personally do drink soya milk, and I go for calcium fortified soya milk to obviously protect bones and everything else. But I go for a lot of tofu, tempeh edamame beans, and that actually has been shown to help with PCOS. It helps reduce LDL cholesterol, helps with weight management, helps improve skin texture and appearance, even wrinkles. They've done great studies, it can actually help women in the menopause who don't even have PCOS with hot flashes. In PCOS, there's been a lot of studies on soya and PCOS which is brilliant, showing improvement in actually ovulation rates as well. So it's a fantastic fertility friendly food. Now you want to go for, we're not talking about the soya burgers and things that you might have on a barbecue once in a while, we're talking about minimally processed forms of soya. And these aren't just fantastic sources of protein. They also contain great amounts of iron, calcium, manganese, potassium, and huge, huge amounts of micronutrients which many of us are deficient in and can really help with PCOS. So, a few portions a day is what I recommend.



**Steven Bruce**

How will I recognise process soya and what is it that's happening to it when it's processed that changes it from being useful?

**Rohini Bajekal**

Yeah, it's often isolated from the original soya bean. So you've got soya protein isolates that you might find in things like protein powders or in soya burgers and things like that. So generally it's the ultra-processed foods also have other things like additives, emulsifiers, excess salt, oil and sugar to make it taste good. But as a nutritionist, it's very important to look at food in its entire package. So when you're looking at, if you're just looking at the protein quantity of a chicken breast, you might be missing the fact that a chicken breast has exactly zero fibre. Also look at the way it's produced, 70% of the meat that we eat in the UK is from factory farmed animals. It potentially contains antibiotics and other environmental contaminants which we know, this is a whole chapter in our book, I don't know if you came across that yet, Steven, but women with PCOS are particularly sensitive to environmental contaminants and what are called endocrine disruptors, which we find in everything. It's probably on this couch that I'm sitting on, it's in maybe if you're wearing things like polyester clothing, or shop receipts that contain things, or plastic water bottles, we're drinking out of glass, but plastic water bottles can contain something called bisphenol A, BPA, which is an endocrine disruptor, negatively impacts both male and female fertility, but women with PCOS appear to be particularly susceptible to that.

**Steven Bruce**

I've noticed more and more things saying that they don't have BPA, and I had no idea what that meant for my health.

**Rohini Bajekal**

The annoying thing is that they contain other bisphenols, so there's not total transparency. And ideally, you just want to stay away from kind of heating food in plastic and things like that. And again, it's progress not perfection, am I going to completely not go to the gym, because my leggings contain some recycled plastic or whatever? No, it just means that when I come back, I'm not going to sit in my gym clothes all day that would be probably quite uncomfortable and maybe quite smelly. And change out to them and just be conscious of these things quickly. If you are trying to get pregnant it's important. And looking at your household products. Are you using a lot of bleach and fragrances? Are you lighting candles at home, and this is relevant for everyone because household candles are actually a big contributor to indoor air pollution. So this is relevant for everyone who's listening, but it's a fascinating area of research where there's actually hard science, it's not again woowoo science, that's out there.

**Steven Bruce**

No, quite. And Kerry's asked whether there concerns about phytoestrogens in soya for PCOS and other hormone issues?

**Rohini Bajekal**

Fantastic question. So phytoestrogens, plant oestrogens, are about 1000 times weaker than human oestrogen that you find. And what's fascinating about soya, and this is where I wish I had my mom because she's brilliant explaining how it works, soya is a very, very clever bean. It has an anti-oestrogenic

effect in certain tissues and a pro-oestrogenic effect in some. Which is why we know that people who have had breast cancer and switched to soy milk actually have lower rates of recurrence. We know that societies, this is again observational data, where they've eaten a lot of soya historically, whether it's Japan, Korea, have some of the lowest incidences of breast cancer. And prostate cancer, if you introduce soya in adolescence, particularly in men, it actually reduces lifetime prostate cancer risk. It's a fantastic food for prostate cancer prevention. So it works very differently to mammalian oestrogen. If you're concerned about oestrogen, I would definitely recommend you stay away from dairy, because that is oestrogen that is designed to grow 25-pound baby calf into a 250 pound cow. That's the type of oestrogen I don't want anywhere near me. So with women with PCOS, I don't have any hesitations in asking them to reduce the dairy. If they're going to have dairy and they really want to have dairy as a food that they are really committed to, then I suggest they go for fermented sources, lacto-fermented sources and certainly stay away from things like cow's milk, which we know there are studies showing that it can exacerbate inflammatory acne and things like that. So if you're concerned about that, remember that soya, there's a lot of hype about soya and that was a lot of great marketing by the dairy industry, but soya is not the only food that contains phytoestrogens. It's also found in that a good example is lignans that are found in flax seeds and it's found in a variety of other foods. So chickpeas also contain them so you don't need to be scared of eating soya because it has no negative impact on male or female reproductive health, in fact it's only beneficial.

#### **Steven Bruce**

Okay. There's a lot of information there. I'm guessing that people, if they want to get that information...

#### **Rohini Bajekal**

And all the references, it's all in our book, every single thing. I can sit here and talk about the fact that there's 100,000 studies on soya, with one of the biggest researchers is Dr. Mark Messina, so I recommend anyone who's interested looking up his work.

#### **Steven Bruce**

Sophie says that she was diagnosed with polycystic ovaries, not the syndrome, just cysts, when she in 2015. So that doesn't tell us how old she was. Her cycles were around six to eight weeks long. That was her only symptom, no excessive hair or weight loss. She conceived her daughter within a month, no issues. Fast forward six years, two years in trying to conceive again and it's not happening. She's read a lot on PCOS and insulin resistance and as a result, she went sugar, dairy and wheat free, and she conceived the next month. And he's now 10 months old. So I think she's backing up what you've said.

#### **Rohini Bajekal**

Yeah, fantastic. Well, I'm really happy for you, because obviously secondary infertility is a growing issue. And especially you tend to be older, and it tends to be an issue. But you actually should have been given a diagnosis of PCOS. Because if you had polycystic ovaries on ultrasound, and you had cycles that were six to eight weeks long, well, that's two out of three criteria right there.

#### **Steven Bruce**

Bad luck, Sophie, you're not winning the book, because it wasn't a question and you've already got a ten-month-old, which is your prize.

**Rohini Bajekal**

Two lovely kids so yeah, but thank you for sharing your story. It really is lovely to hear.

**Steven Bruce**

Now Amanda says, that in other broadcasts, we've been advised that soya can increase inflammation in the body and we might need to avoid this. Now I confess that I don't recall who said that.

**Rohini Bajekal**

That's just, again, we have over 100,000 studies on soya showing the safety and the benefits. There are people online, wellness influencers, who are against soya for a variety of reasons, and it's really frustrating to me, because I need to see the science. I can't argue without science. And what we know is major dietetic and nutrition organisations like the British Dietetic Association, which is the leading organisation in this country, recommend soya a healthful food. So I always ask someone, what is your level of science? And what is your level of nutritional qualification to be able to come out and say that. If you personally don't like it, that's great, don't have it, but only 0.3% of the adult population is actually allergic to soya. 0.3% of the European adult population, whereas 70 to 85% of the global population has a degree of lactose malabsorption, lactose intolerance, and in people of colour, like me, it's even higher. So it's a no brainer. If you don't want to have soya, you can still thrive eating plants without it, but it is anti-inflammatory, in fact, and there's no reason to fear it whatsoever. It's really sad that people still have these misconceptions and yeah, go with what major nutrition and dietetic bodies recommend and you can hear it from anyone, always seek reliable health advice. Don't get it from your well-meaning friends, your neighbours, your boss at work, anyone else.

**Steven Bruce**

We're going to run out of time before long and I particularly wanted to talk about what might happen when a typical patient comes to see us and the warning flags that we should recognise and the sort of questioning that we should use in order to elicit the absence or presence of PCOS, which kind of relates a little bit to what Emily here says. She says, especially after COVID, it's hard to get a GP appointment, nevermind to get blood tests etc. And so she's asking whether you have forms for patients to fill in which increase the likelihood of getting the doctor to see them and recognise the importance of testing for PCOS? And my follow up would be, well, let's say someone's come through my door, and they've got low back pain and I'm just thinking, well, could there be anything else going on, as well as or maybe as a cause of whatever they're complaining of?

**Rohini Bajekal**

That's a great question. Yeah.

**Steven Bruce**

That's two for me, I'm definitely getting the book

**Rohini Bajekal**

I do so much education on my social media and otherwise, just for free, just trying to empower people, so that they can understand the signs. And there are private providers like Thriva, that have a PCOS blood test and things that can be done at home. But obviously, your GP should really be doing it if you

have any of these signs. So the main thing to look out for is remembering that periods are a vital sign, if they're not on hormonal birth control, if they are obviously on the pill and things that's not a regular bleed. But if they're not on hormonal birth control, and they're not pregnant, then they should be having a regular menstrual cycle-

### **Steven Bruce**

So someone comes into my clinic, and I will always ask at the first appointment, I will be asking about whether they've got normal periods. And they say, well, they're a bit irregular. And actually, I'll think to myself, well, that's interesting, I'm not quite sure what I do with that information. Where do we go from there?

### **Rohini Bajekal**

So ask them, do you track your cycle? How much does it vary by? Do you have a graph? So if you've got an app on your phone, like Clue or Flow, these are free apps, you can put in the first day of your menstrual cycle, and then every month it will tell you, okay, your cycle varies by this amount. And that's really good because you can show your gynaecologist or your osteopath or whoever, this is my typical side. And you can see oh, okay, Sarah's telling you this and it varies by one day, two days. So it's 33 days, 35, 32, 33, 34, 35. That's a normal cycle. If it's sort of 28 days, 35 days, 29 days, 45 days, that's usually PCOS. Not usually that could be a variety of other issues, but that's a sign that it could be PCOS, especially if they've got other symptoms. So that's a chance to kind of ask more questions, but also really understanding their quality of life. A common complaint of PCOS is fatigue. So, that's something so many people are dealing with, especially with burnout post pandemic and everything else. And the last couple of years, it's been really hard on people. But those signs of insulin resistance, so if they're getting constant sugar cravings. Do they, most importantly, exhibit the signs of hyperandrogenism, which, as physical therapists, you might be in a really good place to notice. So that acne that looks really angry, it's not just one or two spots before your period, it's that cystic inflammation. Do they have any signs of excess hair growth, perhaps in places they may not want it as women, on their neck or their chin, their jaw line. Maybe thicker hair on their stomach and back and things. And again, this will vary depending on ethnic group, so you shouldn't automatically jump to a conclusion of PCOS but it can be a sign and then the acne around the back and things like that.

### **Steven Bruce**

It's a difficult thing to bring up though, even in a medical consultation, isn't it? So I see you've got more hair here than is normal.

### **Rohini Bajekal**

I think it is difficult to bring up and so just really listening to the patient, looking for openings in conversation and not using stigmatising language. For example, not discussing testosterone as being a male hormone because actually, all genders have testosterone, and it's only very slightly higher in women with PCOS. In fact interestingly, probably due to the slightly higher amounts of testosterone, PCOS is the most common menstrual disorder amongst Olympic athletes, which was a nice fun fact I included in the book, I thought that's quite empowering. But just asking them, do you notice any skin changes? Do you notice any kind of differences around your period? Do you have any signs of PMS? Just getting them comfortable talking about their menstrual cycle, and then also the other symptoms. And you could notice

them and say, do you have anyone in the family who's got type two diabetes? That's a great question to ask. Did your mother or father or sibling or child have type two diabetes? That's a warning sign for PCOS because as I mentioned, it's a complex genetic trait. If you've got a relative with type two diabetes, you're much more likely to have PCOS, if you're a woman, so asking about that. Scalp hair loss. And of course, it's difficult to point out these things and say, oh, you're quite hairy. That's not the way you want to go. But just saying, do you ever notice that you might be having some signs of hormonal imbalances? And maybe positioning it that way and just asking in a more sensitive way and listening to them, and they may open up to you and share that they are trying to conceive, and they're finding it difficult. Or that they're falling asleep at work, because they're really exhausted all the time, and they don't have much energy. All of these sorts of things can be signs of insulin resistance, and particularly if you notice those dark velvety patches, that acanthosis nigricans, that's a great thing for physical therapists to notice around the neck and the underarms, the darkening of the skin. Those are important things to point out, because they may go unnoticed.

**Steven Bruce**

Give me that Latin name again?

**Rohini Bajekal**

Acanthosis nigricans.

**Steven Bruce**

Acanthosis nigricans, right.

**Rohini Bajekal**

And obviously, the excess weight gain, you'll often hear people say, look, I really struggle, I tried dieting, I tried doing all these things, but I just cannot lose weight. And this is something I think probably almost all dieters or people who are trying to lose weight say and this is why I don't recommend dieting, because yo yo dieting increases hormonal fluctuations worse than sleep quality in PCOS, it increases cortisol levels. So we definitely don't want that. But I think looking for these physical signs is a really good starting point.

**Steven Bruce**

Sleep is a big factor in everything, isn't it? And I'm just wondering whether simply doing stuff to improve your sleep will have any effect on your PCOS, or rather it needs to be the other way around, that actually doing something to improve the PCOS, through lifestyle changes will improve your sleep?

**Rohini Bajekal**

Oh, I'm so glad you asked that. So all the pillars of lifestyle, the six pillars, which is what our whole books about. So nutrition, sleep, movement, stress management, avoidance tobacco, and reduction of alcohol, and then spending time with loved ones, with positive social relationships. All of these are interlinked. And we have a chapter called The Domino Effect when one falls, so do the others. When you've had a terrible night's sleep, you're much more likely to reach for that biscuit tin, and you have those imbalances of the ghrelin, the hunger hormone, and the leptin, which is the satiety hormone. So, sleep is a huge issue in PCOS. Sleep disturbances are more common in PCOS, with many reporting insomnia. And that's

increasingly common amongst the British public in general. But women with PCOS also have higher amounts of sleep apnea. And if people aren't aware of that, that's when your breathing stops and starts in your sleep. And it's a really serious condition, it can actually lead to more metabolic issues down the line. So it needs to get checked out. But it's hard to diagnose. One of the key things is that kind of gasping for breath, snoring, that's really common in PCOS and reduced daytime functioning. So waking up and still feeling groggy and tired and just having a poor night's sleep. And again, diet and lifestyle, stress management, this can all help. If you're lying awake, ruminating about your excess hair or fertility issues, that's really gonna affect you. So being sensitive about that. I found for me exercise made a huge difference, strength training or resistance training in particular, is important for all of us. Anyone who's listening and is over the age of 30 needs to be doing some strength training two times a week, because we lose lean muscle mass every year after the age of 30. And strength training in PCOS actually helps with glucose disposal. And one of the most simple things and beautiful things you can do in PCOS is go for a 10 minute walk after a meal that helps with, postprandial exercise, which is exercising after a meal, helps reduce glucose excursion. So it helps rather than getting that kind of high spike, especially if you've had a carbohydrate rich meal. And remember, we want to focus on carbohydrates, but good quality carbohydrates, sweet potatoes, oats, brown rice, quinoa, not your white rice, white bread, white sugar. But going for that 10-minute walk can make a huge difference. I hope that helps with sleep. But sleep is a really important pillar.

**Steven Bruce**

Right, thank you. Now we haven't got very much time left and we might get time for another question. But we've also got to decide who's going to get the book.

**Rohini Bajekal**

Oh, yeah.

**Steven Bruce**

Have you had any thoughts about which of those questions you liked most? It's going to be hard, isn't it, there were lots of them.

**Rohini Bajekal**

I'm surprised that more people didn't ask about supplements, but we do have a whole supplement chapter in the book. I think...

**Steven Bruce**

I'm looking back through the list of questions here.

**Rohini Bajekal**

Actually, really the one that stuck in my head was that in omega-3 question, I thought that that was very scientific. I'm glad that was brought up because we have a real imbalance of omega-3 versus omega-6.

**Steven Bruce**

Whoever asked that is going to know who she or he was, but I'm just trying to find it in here. Here we go, it's Zojo! So as long as we can identify who Zojo is from the from the chatline.

**Rohini Bajekal**

All those questions were great, I feel bad picking out one. The worst one was the carnivore diet. Please, don't go on a carnivore diet.

**Steven Bruce**

So we're not gonna send him that book. Okay, so we're gonna give that one to Zojo. That does give us time for just a little bit more. We've got 410 people watching, which is a pretty good number for an evening broadcast.

**Rohini Bajekal**

Oh, wonderful, and remember, if you've listened to this and you've learned anything about PCOS and just how complex it is, don't be afraid to empower your patients just because you don't have all the answers. You could be the first person in their life that actually lets them know that this is something that they could get looked into. And you could prevent them from years of suffering, either with infertility, early type two diabetes, or lifelong other issues.

**Steven Bruce**

I was gonna ask you, several times you talked about stigma. I don't perceive that there is a stigma to having PCOS.

**Rohini Bajekal**

Really?

**Steven Bruce**

Yes. Am I wrong in that?

**Rohini Bajekal**

It's huge. Yeah, I think there's huge stigma in having PCOS to come out and say. Why do I know that there's stigma? Because most people don't talk about their menstrual cycle. There's stigma around periods still in 2022, which is absolutely astonishing. Women still are not able to, for various reasons or given the space in workplaces to talk about that, let alone things like the menopause. PCOS is hugely stigmatised. And there's a reason why, even though there's been this huge rush of celebrities talking about endometriosis, which is a really devastating condition, but celebrities have been talking about it, and a lot of celebrities are not talking about PCOS. There's been a few like Rebel Wilson and Victoria Beckham's a famous case of someone who had PCOS and has really done a lot in terms of lifestyle management.

**Steven Bruce**

Not someone I've ever noted as having weight issues, well, not overweight issues.

**Rohini Bajekal**

Again, 20% of people like me, with PCOS don't have weight issues. So don't assume.

**Steven Bruce**

No, that's why I brought it up.

**Rohini Bajekal**

In the Spice Girls, I actually watched a documentary about her the other day where they were making fun of her acne and there was a tape of her in the audition where they said, lovely girl, great personality, shame about her skin though. And they zoomed in on her cystic acne and it was really inflammatory. And she probably made a lot of dietary and lifestyle changes. Although that doesn't automatically fix everything in PCOS, you can be leading the cleanest, healthiest lifestyle ever. But there's a huge amount of stigma, coming out and saying, I've got excess hair growth. I've got infertility, I have irregular periods, higher testosterone, and I'm losing the hair on my head. I mean, what's not stigmatised there?

**Steven Bruce**

No, that I can understand. Having to admit to all that, having to talk about your periods, having to talk about excess hair, that sort of thing, but PCOS to most people simply means you have a syndrome.

**Rohini Bajekal**

But then they ask what that is. And it takes a quick Google to find out and the fact that most people don't know what it is already shows you that it's stigmatised, because if it affects 10% of women and no one's talking about it, that's one in ten of us and most of us don't even know we have it. So there's a huge amount of work to do. It's actually a political issue. There was a great parliamentary debate last year, unfortunately nothing much came out of it, on endometriosis and PCOS. But at least it was on the table, we need to actually be increasing conversations. In the USA, PCOS and its associated complications costs the US \$10 billion in spending, \$10 billion are the costs associated with PCOS and the metabolic issues as a result of that. So it's got a huge burden, both for the individual and wider society. And so yeah, I really appreciate you saying that. Because I think it's nice that there are men like you saying, actually, we should be talking about this and having a space to talk about it. And that's why, everyone who's listened to this, hopefully you can go and empower your patients, but also other people that you meet, to maybe understand this condition.

**Steven Bruce**

I'm actually very pleased, I think we brought up a number of topics on this show, this being one of them.

**Rohini Bajekal**

So many questions! Some of them I wish I had more time to answer because I couldn't. They are not simple questions, including things like the plant protein index, you really could do a whole session just on that.

**Steven Bruce**

I think you just volunteered to come back again.

**Rohini Bajekal**

I really appreciate everyone listening and I know that it's a complex topic and there's no easy answers, we often try to just find a quick fix solution. There isn't one, but you can live a long and healthy life. You



can put your symptoms in remission, and you can have a joyful life with PCOS. And yeah, manage the the symptoms and the condition.

### **Steven Bruce**

Rohini you've continued the family tradition, you've been a great speaker, really. I'm always in awe of people who can just drag up all this information off the cuff, because I'm not asking you to follow a script here, I'm just asking you all this stuff and so are the viewers, and you just come out with all this information. It's marvellous, it's been really informative. And I'm absolutely certain that many of the audience are going to go away and say, well at least, I've got something else I can help patients with as a result of this. Sadly, however, we have now run out of time, as always long before we've run out of information, as you can tell, and long before we've run out of questions, but I really, really hope that you've got a lot of useful material to help with your patients from this. I can't believe you haven't. Looking ahead, I was reminded today they're only five and a half weeks until Christmas. But we have still got time for quite a bit of CPD beforehand. So on Thursday this week, I've got a lunchtime chat with Chris Chippendale about how we use our own mindsets to best advantage in clinic. Next Tuesday, always a week after the evening broadcast, we've got a lunchtime case-based discussion and then on the following Monday, another lunchtime discussion, that's the fifth of December, and I'm going to be talking about tongue tied babies. Our next evening discussion is Wednesday the seventh of December, and I've got Claire Minshull, who you might remember from several previous shows coming in and Serena Simmons. Now, you probably don't know about Claire Minshull, Claire Minshull is a former British powerlifting champion, and she actually has a doctorate in in this stuff and she comes in to talk about the benefits of strength training for all sorts of things. So actually, I'm intrigued that you've mentioned it as being a factor in treating or dealing with PCOS in this evening's discussion. So anyway, we've got Claire and Serena are coming back in, but with them, we will be looking really at the psychological components of getting people better. And both Claire and Serena are real, no nonsense ladies with loads of experience behind them. So do get that one in your diaries. That's Wednesday the seventh at 7:30 as normal for our evening broadcasts. Remember, you can get all these dates and much more off the APM app, which we will also send you reminders about the shows. But I think that's probably enough for me for this evening. So from all of us here, thank you for taking part and good night. And thank you.