

# what is PCOS?

## POLYCYSTIC OVARIAN SYNDROME

The symptoms are embarrassing and distressing. Diagnosis is often tricky. But if you are one of the growing number of women affected by this syndrome there is hope, says dietitian Kate Marsh

**IT'S BEEN DESCRIBED** as the most common hormonal disorder affecting women today. Officially, polycystic ovarian syndrome affects approximately 4–7 per cent of Australian women, but the true figures could be much higher; the Polycystic Ovarian Syndrome Association of Australia (POSAA) suggests the real figure could be as high as 12 per cent. This equates to one in eight women, or half a million Australian women of child-bearing age, they estimate.

The symptoms related to PCOS usually start in teenagers during puberty or in the early to mid-20s, but can also occur at any age.

They may include:

- irregular or absent periods;
- infertility or reduced fertility;
- excess hair growth on the face, chest and abdomen (hirsutism);
- scalp hair loss (alopecia);
- acne;
- dark skin pigmentation, most commonly found at the back of the neck and under the arms and breasts (acanthosis nigricans);
- obesity and/or difficulty losing weight;
- increased risk of miscarriage.

The main problem with diagnosing PCOS is there is no one, simple test available that can be used. Diagnosis usually involves considering a combination of symptoms, testing hormone levels (including insulin), and performing an ultrasound to look for cysts and enlargement of the ovaries.

Current guidelines suggest women need to have two of the following three symptoms to be diagnosed with PCOS:

- 1 Irregular or absent periods;
- 2 Polycystic ovaries (which will show on ultrasound);
- 3 High levels of male hormones in the blood or symptoms of excess male hormones, such as excess hair on the face and body or acne.

Many women suffer from PCOS in silence because they haven't made the connection between the symptoms, so continue to seek treatment for the individual problems. Others know something is wrong, but have trouble getting a proper diagnosis due to a lack of understanding of this condition amongst general practitioners and even many gynaecologists. For this reason, the POSAA is pushing to

establish a national task force to develop guidelines for the diagnosis and treatment of PCOS.

### WHY IT HAPPENS

Exactly why this syndrome develops remains unknown and there may be a number of different reasons, but for the majority of women it is caused by high levels of insulin in the bloodstream. This condition, known as insulin resistance, is due to an insensitivity of a person's body to the hormone insulin, which is produced by the pancreas to help regulate blood glucose levels. Because the insulin they're producing does not work effectively, their body needs to produce increasing amounts to keep the blood glucose levels under control.

Unfortunately, these high levels of insulin circulating in the blood can cause many health problems, including PCOS. This is because high insulin levels act on the ovaries to increase production of male hormones, which disrupt the normal ovulation cycle and cause many of the symptoms of PCOS. This link also means women with PCOS are at an increased risk of

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developing health problems such as impaired glucose tolerance ("pre-diabetes"), gestational diabetes (diabetes during pregnancy), type 2 diabetes and cardiovascular disease.

The good news is that by improving insulin resistance many of the problems of PCOS are resolved, or at least improved.

### WHAT TO DO

Until recently, doctors have focused on simply treating the individual symptoms, such as the acne, infertility or excess hair. But for women who have PCOS and

### CASE STUDY: SABRA LANE

Describing her experience of PCOS as a litany of misdiagnosis and mayhem, Sabra Lane says she walked around for years without really knowing how to treat her condition.

"I didn't have my first period until I was 15 and then, about 18 months later, I started to develop excess hair on my face. I went to my family GP who diagnosed delayed puberty and told me not to worry. Blood tests back then showed zilch.

"A few months later I went to another GP – a woman – who had just read about PCOS. She referred me to a reproductive medicine expert."

Sabra says the condition was mortifying for her as a teenager.

"The hair on my face was very embarrassing. It was all over my lips, chin, the sides of my face and on my legs. I can remember pleading with mum to let me shave my legs and have facial waxing at 12, but she wouldn't until another

relative finally asked, "What is Sabra going to do about her moustache?"

It wasn't until Sabra was 20 that the worst part of the disease struck. "Like many people with PCOS, for me the weight gain was one of the last symptoms that developed." I had such a rapid weight gain that I went from a size 10 to bursting out of my size 16 clothes in 12 months," she says.

The "cures" back then were worse than the disease itself, she recalls.

"The anti-androgen medication I was on was obviously helping with the hair problem, but it was making me pile on the weight. It was only years later that I went on Metformin – a drug used for diabetes – that the weight started coming off, a little at least.

"Not only did it help with my insulin resistance and weight, but it kept the hair growth under control as well."



Sabra says she also stuck to a strict but healthy exercise and diet program.

"I tried everything, but nothing seemed to have much effect until I went on the medication, and then it all came together. "Now I'm a size 14 and still exercise five times a week for a minimum of 30 minutes to an hour. I have to really watch my diet. I know I have to try that bit harder than everyone else to keep my weight down, because I'm at a much greater risk of developing diabetes.

"I also had an insulin resistance test a few years ago, which confirmed I had insulin problems. This was the missing piece of the jigsaw."

Sabra, an ABC Radio current affairs journalist, is telling her story to help others.

"It's time PCOS was given higher priority – along with breast cancer, menopause and obesity. It's one of the few major diseases without a task force," says Sabra. "The stats are scary: one in four women have polycystic ovaries and one in eight have polycystic ovarian syndrome. The message needs to get out."

related insulin resistance, it has been found that treating the insulin resistance can significantly improve all or most of the symptoms associated with PCOS. Getting insulin resistance under control will also help to reduce the long-term risks of developing diabetes and heart disease.

You can do this with lifestyle modifications – changing your diet, starting or increasing exercise and losing excess weight (see Sabra Lane's story, previous page and left, to see the effects). Medication may also be needed but is only effective if used in combination with healthy living. Metformin, a drug commonly used by people with type 2 diabetes, is now being widely used to treat women with PCOS.

### WHAT YOU EAT IS KEY

The impact of weight loss on reducing PCOS symptoms is significant – a reduction of just 5–10 per cent of bodyweight has been shown to: reduce insulin and testosterone levels; improve hirsutism and acne symptoms; improve menstrual function; restore ovulation and increase fertility.

Also, when insulin resistance is the underlying problem, women with PCOS need to focus on lowering their insulin levels and improving their body's sensitivity to it. The best eating plan to do this includes food low in saturated fat and high in fibre, as well as carbohydrates that have a low glycaemic index (GI).

Spreading food intake evenly across the day and avoiding eating large amounts of carbohydrate foods at one time can also help, as this will prevent sudden large rises in blood glucose and insulin levels.

The ideal is to combine a healthy eating plan with regular exercise – women with PCOS need to include at least 30–40 minutes of activity on most days. Aim for a combination of aerobic exercise (walking, running, dancing) and resistance training (lifting weights).

If you have PCOS and need help with your diet, visit the Find-a-Dietitian section on the Dietitians Association of Australia (DAA) website, [www.daa.asn.au](http://www.daa.asn.au). ■

### WHERE TO GO

For more information:

- **Polycystic Ovarian Syndrome Association of Australia**  
[www.posaa.asn.au](http://www.posaa.asn.au)
- **The Jean Hailes Foundation for Women's Health**  
[www.jeanhailes.org.au](http://www.jeanhailes.org.au) & [www.managingpcos.org.au](http://www.managingpcos.org.au)
- **The PCOS Project**  
[www.projectpcos.org](http://www.projectpcos.org)
- **The New Glucose Revolution: Managing PCOS** by Nadir Farid, Jennie Brand-Miller and Kate Marsh (Hodder Headline Australia, 2006).

KATE MARSH IS AN ADVANCED ACCREDITED PRACTISING DIETITIAN AND CREDENTIALLED DIABETES EDUCATOR. SEE PAGE 94 FOR ARTICLE REFERENCES.