

## PCOS

Polycystic ovary syndrome (PCOS) is a condition that affects your ovaries and means you don't produce eggs (ovulate) regularly.

Most women have cysts in their ovaries.<sup>1</sup> However, if you have polycystic – meaning many - ovaries, you'll have nearly twice as many cysts as women without the condition.<sup>1</sup> The cysts contain egg follicles that haven't developed properly because of hormones not working effectively.<sup>1</sup>

PCOS is common and affects around 20 percent of women.<sup>1</sup> If you have PCOS, then you will experience one or more symptom, such as menstrual problems, infertility and excessive body hair growth.<sup>1</sup> Although PCOS can be treated, it cannot be cured.<sup>1</sup>

### Symptoms

The most common symptoms appear in your late teens and early twenties.<sup>1</sup> They include irregular or light periods, or none at all, leading to fertility problems.<sup>1</sup>

Other symptoms include:<sup>1</sup>

- Weight problems.
- Acne.
- Excessive hair growth.
- Thinning hair or loss of hair.
- Depression and changes in mood.

You won't necessarily have all the symptoms, and may only have them mildly.<sup>1</sup>

### Long-terms health problems

These include:<sup>1</sup>

#### Type 2 diabetes

If you have too much sugar in your bloodstream, you're at risk of developing diabetes.<sup>1</sup> If left untreated, it can lead to organ damage.<sup>1</sup> Many women with PCOS have a long-term resistance to insulin, which controls blood sugar levels.<sup>1</sup> They make too much which can lead to weight gain, irregular periods and infertility – mirroring PCOS symptoms – and makes them at greater risk of diabetes.<sup>1</sup>

Ask your GP to check for any signs, especially if you have diabetes in the family.<sup>1</sup> Losing weight and exercising regularly will minimise the risk.<sup>1</sup>

## **Endometrial cancer**

Women who have irregular periods, or don't have periods for many years have a higher than average risk of developing cancer of the womb lining.<sup>1</sup> The cancer develops if the womb lining isn't lost regularly.<sup>1</sup> If you have less than three periods a year, you have an increased risk.<sup>1</sup>

Your GP can prescribe a low-dose contraceptive pill to bring on menstruation, or if you haven't had a period for over a year, can arrange an ultrasound scan to check your womb lining.<sup>1</sup>

## **Heart disease**

Women with PCOS are also at increased risk of developing high blood pressure and high blood cholesterol levels, causing stroke and heart disease.<sup>1</sup> Ask your GP to check your blood-fat levels but it's important, if you are overweight, to improve your diet and take exercise regularly.<sup>1</sup> Your GP may prescribe statins to lower the fat in your blood.<sup>1</sup> Give up smoking.<sup>1</sup>

## **Causes**

Doctors are still unsure what causes PCOS.<sup>1</sup> One theory is that the condition could run in families, and that some women go on to develop PCOS because of different factors linked to lifestyle and diet.<sup>2</sup> Experts do know that symptoms are caused by higher than normal levels of hormones.<sup>1</sup>

Insulin is thought to play a major role.<sup>2</sup> It controls our blood sugar level but any women with PCOS are insulin resistant.<sup>1</sup> This means the level of insulin in the blood needs to be higher than normal to control your blood sugar level.<sup>1</sup> The high level of insulin causes the ovaries to make too much testosterone, which results in excess hair and acne.<sup>1</sup>

Another hormone called luteinising hormone (LH) is made in the pituitary gland.<sup>1</sup> It stimulates the ovaries to ovulate and works alongside insulin to promote testosterone production.<sup>1</sup> A high LH level combined with a high insulin level means that the ovaries are likely to produce too much testosterone.<sup>1</sup>

Being overweight or obese doesn't cause PCOS but it can make insulin resistance worse, causing the level of insulin to rise even higher, creating a 'vicious cycle'.<sup>1</sup>

Research is being carried out into the causes of these hormonal abnormalities.<sup>1</sup> There may be several causes which would explain why different women have such different symptoms.<sup>1</sup>

## **Diagnosis**

If you think you have PCOS, visit your GP.<sup>1</sup>

If possible, book a double appointment so you can have plenty of time to talk about your symptoms.<sup>1</sup> It will also help if you keep a PCOS diary noting down symptoms and frequency of periods, which you can refer to during your discussion.<sup>1</sup> You will probably have your blood pressure and if you are overweight, your blood sugar level, checked.<sup>1</sup>

Your GP will send you for an ultrasound scan to check for polycystic ovaries and blood tests to detect hormonal abnormalities.<sup>1</sup> These tests will also rule out any other conditions, such as thyroid problems.<sup>1</sup> Once a diagnosis has been made, your doctor may refer you to a gynaecologist, or an endocrinologist, a doctor specialising in the hormonal system.<sup>1</sup>

## **Treatment**

### **Weight loss**

This will improve your chances of ovulating and getting pregnant.<sup>1</sup> Losing weight will reduce high insulin levels and will reduce the amount of testosterone being produced.<sup>1</sup> It may also help to reduce hair growth and acne.<sup>1</sup> Talk to your GP about getting support to lose weight through a healthy diet and 30 minutes of exercise every day.<sup>1</sup>

### **Statins**

If you are overweight and you have a high amount of cholesterol then you may be prescribed with statins, such as simvastatin, to reduce blood fats.<sup>1</sup>

### **Regulating periods**

Your GP may put you on a contraceptive pill, combining an antitestosterone drug with oestrogen.<sup>1</sup> The pill may also improve acne, any excess hair and hair loss.<sup>1</sup>

You can also take a progestogen hormone for several days every month which will cause a monthly bleed like a period.<sup>1</sup> Having regular periods will reduce the risk of developing cancer of the lining of the womb.<sup>1</sup>

If neither of these is suitable, your GP may advise a regular ultrasound scan of your uterus to detect any problems early.<sup>1</sup>

### **Improving fertility**

- Your GP may prescribe a drug that helps to lower the level of insulin.<sup>1</sup> Metformin is commonly used to treat people with type 2 diabetes while newer drugs include rosiglitazone and pioglitazone.<sup>1,2</sup> More research is needed to confirm how successful these drugs are in the treatment of PCOS and you will need to ask your GP about any side effects.<sup>1,2</sup>
- Clomiphene citrate works by causing an increase in the levels of hormones in your body which control the development and release of an egg.<sup>1,5</sup> Side effects include headaches and there is an increased risk of multiple pregnancy.

- Hormone injections containing a mixture of luteinising hormone and follicle stimulating hormone stimulate ovarian follicles to grow.<sup>1</sup> Risks include a danger of multiple pregnancies.<sup>1,7</sup>
- Laparoscopic ovarian diathermy which sees short burst of heat or laser treatment to the surface of each ovary bringing on hormone changes.
- In vitro fertilisation (IVF) may also be an option.<sup>1,7</sup>

### Reducing hair growth

- Shaving, waxing, sugaring, plucking, bleaching and laser removal. There's no evidence that hair will grow back faster and thicker if you remove it.<sup>1</sup>
- Your GP may suggest a cream which you rub into the affected area.<sup>1</sup> It contains eflornithine, a type of medicine which works by blocking the action of an enzyme (chemical) involved in hair growth.<sup>1</sup>
- Types of contraceptive pill also help to reduce hair growth.
- Drugs such as flutamide and finasteride reduce hair growth.<sup>4</sup> Side effects include diarrhoea and dry skin and could harm an unborn baby.<sup>4</sup> They may also take between three to nine months to work, so you may want to remove hair through other methods until they begin to work.<sup>4</sup>

### Treating acne

- Some contraceptive pills can help improve the condition.<sup>6</sup>
- For mild acne, blackheads and whiteheads, you can use over-the-counter creams, gels and lotions applied directly to the skin.<sup>6</sup>
- Sometimes, oral antibiotics are prescribed.<sup>6</sup>
- Stronger medication such as isotretinoin can cause side effects and can only be prescribed by a dermatologist.<sup>6</sup>

### Deal with stress

It's vital to manage your stress levels if you have PCOS.<sup>1</sup>

When stress hormones are released they make your body produce more testosterone, which can cause more insulin resistance, weight gain, depression, loss of sex drive, irregular periods and bad skin.<sup>1</sup>

Try to:<sup>1</sup>

- Make time for yourself, even if it's just a walk during your lunch hour.
- Exercise – it boosts levels of endorphins, the body's own happy hormones.
- Get enough sleep.
- Try complementary therapies like acupuncture, reflexology, aromatherapy, but if you're taking drugs, tell your GP before starting any treatments as they can affect medicines.
- Talk to your GP if you feel stressed.
- Get support and help through Verity, a UK charity that helps to run support groups.

## More information

Verity is a UK charity for women whose lives are affected by polycystic ovary syndrome.

Web: [www.verity-pcos.org.uk](http://www.verity-pcos.org.uk)

### Sources

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[www.verity-pcos.org.uk](http://www.verity-pcos.org.uk)

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<http://www.bad.org.uk/public/leaflets/acne.asp>

**7. NICE**

[www.nice.org.uk/Guidance/](http://www.nice.org.uk/Guidance/)

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A wide range of women's health resources are available at [www.healthywomen.org.uk](http://www.healthywomen.org.uk)

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