



# Fact Sheet

From ReproductiveFacts.org



The Patient Education Website of the American Society for Reproductive Medicine

## Polycystic Ovary Syndrome (PCOS)

### **What is PCOS?**

Polycystic ovary syndrome is a common hormone disorder that affects 5-10% of women. Like all syndromes, PCOS is a collection of problems that are found together. Not all women with PCOS have all the same symptoms. To be diagnosed with PCOS, a woman must have 2 of 3 possible issues: chronic lack of ovulation (anovulation), chronic high testosterone (hormone) levels (hyperandrogenism), and ovaries that have multiple fluid-filled sacs (polycystic).

### **How is PCOS diagnosed?**

Because this condition is diagnosed by identifying several different problems, PCOS is diagnosed using a combination of physical exam and history, ultrasound (sonogram) and blood tests.

On exam, women who have PCOS may complain of irregular or missed menstrual periods or a long time between periods. They may also be overweight, have increased hair growth (hirsutism), acne, or be unable to get pregnant. On ultrasound, many women with PCOS have enlarged ovaries with many small cysts. Blood tests may show high blood sugar, high cholesterol levels, or high levels of male hormones.

### **What risks do women have with PCOS?**

Some of the risks are related to a woman not ovulating regularly. When ovulation doesn't happen, it interrupts the usual hormone cycle and causes the lining of the uterus to be exposed to constant levels of estrogen. This can encourage the lining to become too thick and cause abnormal bleeding. It also may lead to uterine cancer or pre-cancerous changes. This lack of regular ovulation can also make it difficult to get pregnant.

Metabolic syndrome is common in women with PCOS. Symptoms include extra weight around the middle, high cholesterol, high blood pressure, and insulin resistance/diabetes. Each of these symptoms raises the risk of heart disease. Obesity is common in women with PCOS.

### **How is infertility in women with PCOS treated?**

One way to treat infertility is to cause ovulation using medicine. Clomiphene citrate is taken by mouth and is usually tried first. Letrozole is another oral medicine

that is sometimes used and can be particularly helpful with patients with PCOS. If this is unsuccessful, injected fertility medicines called gonadotropins may be given to stimulate the growth of an egg. Women with PCOS must be watched very carefully when these medicines are used to make sure that they are not responding too much.

If a woman is overweight, losing weight can help improve ovulation patterns and fertility.

Insulin-sensitizing medicines such as metformin can help the body use insulin more effectively to improve ovulation. This may also lower the risk of developing diabetes or metabolic syndrome.

Aromatase inhibitors, such as letrozole, are sometimes used in women with PCOS who desire fertility.

In vitro fertilization (IVF) may help women with PCOS get pregnant if other treatments do not work.

### **How is PCOS treated in women not trying to get pregnant?**

If fertility is not the goal, taking hormone medication usually helps to correct PCOS symptoms. Oral contraceptive pills (the pill) are often taken to reduce extra hair growth and acne. The pill can also make menstrual periods more regular and prevent pregnancy and some types of cancer. Metformin can help lower the risk of developing diabetes or metabolic syndrome.

Excess hair and acne can be treated with medicines that lower male hormones. Excess hair can also be removed using electrolysis and laser treatment. Losing weight lowers the risk of diabetes and androgen levels in many women with PCOS.

Treatment should be tailored to each woman's needs, symptoms, and particular situation and may change over time. Talk with your health care provider to find out the best approach for you.

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