



Polycystic Ovary Syndrome

What is Polycystic Ovary Syndrome (PCOS)?

PCOS is a common health condition that affects women of all races and ethnicities during their reproductive years. In fact, PCOS affects 1 out of every 10 women of childbearing age. **PCOS is caused by an imbalance of reproductive hormones.**

What causes PCOS?

The exact cause of PCOS is not fully known. However, research suggests that both genetic and hormonal factors play a role in developing PCOS.

- **High androgen levels:** Women with PCOS have higher levels of androgen (male) hormones than normal. When androgen levels in women are too high, it can lead to irregular periods and cause acne and unwanted hair growth in places where men usually have hair (hirsutism).
- **High insulin levels:** Insulin is a hormone that regulates blood sugar levels. Women with PCOS may develop insulin resistance—a condition in which the body's cells do not respond normally to insulin. Insulin resistance can lead to high blood sugar levels, which is damaging to the body and may lead to prediabetes and type 2 [diabetes](#). If you have been diagnosed with PCOS, ask your health care provider about testing for type 2 diabetes.
- **Genetics:** PCOS tends to run in families, suggesting a genetic component.

Symptoms of PCOS?

Women with PCOS can have a broad range of [symptoms](#) including, irregular menstrual cycles, infertility, increased hair on the face, chin, or parts of the body where men usually have hair, acne on the face, chest, and upper back and oily skin, thinning hair or hair loss on the scalp; male-pattern baldness, weight gain or difficulty losing weight, darkening of skin, particularly along neck creases, in the groin, and underneath breasts, and skin tags (small excess flaps of skin in the armpits or neck area).

How is PCOS diagnosed?

There is no single test that can diagnose PCOS. Your health care provider may review your medical history, conduct a physical exam, perform laboratory tests, check your hormone levels, or order a vaginal ultrasound to check your ovaries for cysts to help diagnose PCOS.

Diagnosis of PCOS requires at least two of the following signs and symptoms:

- Irregular menstruation
- Symptoms of high levels of androgens (like excess hair growth, acne or thinning scalp hair)
- Multiple cysts in one or both ovaries
- Higher than normal blood levels of androgens

Talk with your health care provider about your symptoms, medical treatment options and their risks and benefits. Your provider can answer your questions and together you can decide which treatment is right for you.

How is PCOS treated?

There is no cure or single treatment that works for all women with PCOS. PCOS is managed with an individualized treatment plan based on specific symptoms.

Treatments may include:

- **Oral contraceptives or progestin therapy** to manage irregular menstrual cycles
- **Anti-androgen medicines** to help control unwanted hair growth. Excess hair can also be removed with hair removal creams, lasers, or electrolysis
- **Medicines** to help treat specific symptoms experienced by individual patients

Living with PCOS

While there is no cure for PCOS, lifestyle modifications may improve your PCOS-related symptoms and are considered a primary treatment. Losing weight may help to lower your blood glucose levels, improve the way your body uses insulin, and help your hormones reach normal levels.

PCOS and its impact on fertility and pregnancy

PCOS is one of the most common causes of infertility in women because it can affect ovulation. If you have PCOS and plan to get pregnant, speak with your health care provider to discuss how to increase your chances of getting pregnant.

While most women with PCOS can have healthy pregnancies, PCOS can cause problems for some women and their fetus. Women with PCOS have higher rates of miscarriage, gestational diabetes, and preterm birth. Speak with your health care provider about ways to stay in good health during pregnancy.

Health problems linked to PCOS

Research has found links between PCOS and other health problems:

- **Diabetes** – More than half of women with PCOS will develop diabetes or prediabetes (glucose intolerance) before the age of 40.
- **High blood pressure** – Women with PCOS are at greater risk of having high blood pressure compared with women of the same age without PCOS, increasing their risk of heart disease and stroke.
- Unhealthy **cholesterol** – Women with PCOS often have higher levels of LDL (bad) cholesterol and low levels of HDL (good) cholesterol. These imbalances can raise the risk of heart disease and stroke.
- **Sleep problems** (sleep apnea) – PCOS and weight gain can increase the risk of sleep apnea, a condition where breathing stops and starts during sleep.
- **Depression** and **anxiety** – Many women with PCOS experience mood disorders. It's unclear if PCOS directly causes mental health challenges or if these issues arise from the stress of dealing with PCOS.
- **Endometrial cancer** – Problems with ovulation, obesity, insulin resistance, and diabetes (all common in women with PCOS) increase the risk of developing cancer of the endometrium (lining of the uterus or womb).

The relationship between PCOS and these health issues is still being studied. Taking steps to manage PCOS—such as maintaining a healthy weight, healthy diet and staying active—can help lower these risks and improve overall health.

This information was developed by the **FDA Office of Women's Health**. It is for educational purposes, not all inclusive and should not be used in place of talking with your health care provider.

To learn more, go to: www.fda.gov/womens

