



# General outlook on polycystic ovary syndrome

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**Received:** 01-Feb-2022, Manuscript No. MCSCR-22-59188; **Editor assigned:** 04-Feb-2022, Pre QC No. MCSCR-22-59188 (PQ);  
**Reviewed:** 18-Feb-2022, QC No. MCSCR-22-59188; **Revised:** 25-Feb-2022, Manuscript No. MCSCR-22-59188 (R); **Published:**  
04-Mar-2022, DOI: 10.15651/MCSCR.22.10.033.

## DESCRIPTION

Polycystic Ovary Syndrome (PCOS) is a condition in which the ovaries produce abnormal levels of androgens, male hormones that are normally present in women at low levels. Ovulation occurs when a mature egg is released from the ovaries. This is done to allow male sperm to fertilize. If the egg is not fertilized, it will be released from the body during menstruation. It can also stop your period or make it difficult to predict. You can get treatment for your symptoms. You may become pregnant, but you may need to take medications to improve your fertility. Some women with PCOS have cysts in their ovaries. That is why it is called "polycystic". However, many women with PCOS do not have cysts, so the name is misleading. PCOS is one of the most common causes of infertility in women, affecting 6% to 12% (up to 5 million) of US women of childbearing age. But that's not all. This lifelong health lasts well beyond the childbearing age. Women with PCOS are often insulin resistant. Your body can produce insulin, but it cannot be used effectively, increasing your risk of type 2 diabetes. When you have PCOS, your reproductive hormones are out of the bang. This can cause problems with your ovaries such as menstruation is not in time. Your body makes hormones to do many things. Some affect the menstrual cycle and are related to the ability to give birth to a baby.

## Symptoms and Causes

Symptoms of PCOS include a lack of menstrual cycle, irregular or very mild menstrual cycle, large ovaries or many cysts, excess hair (hirsutism) including chest, abdomen and back, especially weight in the abdomen (abdomen) and Increases acne or greasy skin, male-type bald or thinning hair, infertility, small extra skin on the neck or flanks (skin patch), dark or thick patches of skin on the neck, flanks and under the chest.

The exact cause of PCOS is unknown. There is evidence that genetics also plays a major role. Several other factors also affect PCOS development.

High androgen levels prevent the ovaries from releasing (ovulating) eggs, resulting in an irregular menstrual cycle. Irregular ovulation can also cause the ovaries to form a sac filled with small fluids. High androgens also cause acne and excessive hair growth in women.

## Insulin Resistance

When insulin levels increases, the ovaries produce and release male hormones (androgens). Second, elevated androgens suppress ovulation and contribute to other symptoms of PCOS. Insulin controls how the body processes glucose (sugar) and uses it for energy. Insulin resistance means that the body does not process insulin properly and blood glucose levels are high. Not all people with insulin resistance have hyperglycemia or diabetes, but insulin resistance can lead to diabetes. Being overweight or obese can also contribute to insulin resistance. Elevated insulin levels may indicate insulin resistance, even when blood sugar levels are normal.

## Low-Grade Inflammation

People with PCOS are prone to chronic inflammation. Your doctor may do a blood test that measures the levels of C Reactive Protein (CRP) and white blood cells that can indicate the level of inflammation in your body.

## Complications

Complications of PCOS include infertility, gestational diabetes or pregnancy-related hypertension, miscarriage or premature birth, non-alcoholic steatohepatitis which is a severe liver inflammation caused by hepatic fat accumulation, metabolic syndrome-hypertension which includes obstacles, high sugar and abnormal cholesterol or

triglyceride levels. This significantly increases the risk of cardiovascular disease, type 2 diabetes or pre-diabetes, sleep apnea, depression, anxiety and eating disorders, abnormal uterine bleeding, and endometrial cancer (endometrial cancer). Obesity associated with PCOS can worsen complications of the disorder.

### **DIAGNOSIS AND TREATMENT**

You may have PCOS and have no symptoms. Many people are unaware that they are in that state until they struggle to get pregnant for unknown reasons or gain weight. It can also lead to mild PCOS that is not as serious as the symptoms are noticeable. Your doctor will decide treatment based on your symptoms, medical history, other

health conditions, and your desire to become pregnant. Treatment may include medication, lifestyle changes, or a combination of both. If you are not planning on becoming pregnant, treatment includes hormonal contraceptives. Options include oral contraceptives, patches, injections, vaginal rings or Intra Uterine Devices (IUDs), insulin sensitizers, androgen blockers, and lifestyle changes. If you are planning to become pregnant now or in the future, treatment of PCOS includes drugs that induce ovulation (egg release), surgery, and *In Vitro* Fertilization (IVF). There is no proven way to prevent PCOS, but there are small steps to relieve symptoms. For example, nutritious foods, regular exercise, and weight management can help avoid the effects of PCOS.