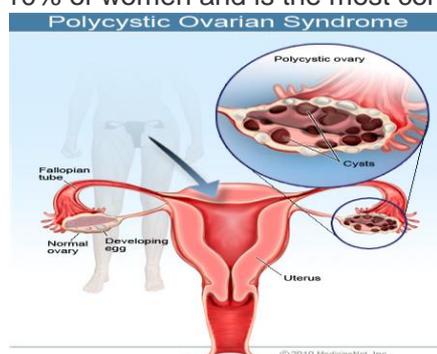


POLYCYSTIC OVARIAN SYNDROME

What is polycystic ovarian syndrome (PCOS)?

Polycystic ovary syndrome (PCOS) is a common hormonal disorder among women of reproductive age. Infrequent or prolonged menstrual periods, excess hair growth, acne and obesity can all occur in women with polycystic ovary syndrome. In adolescents, infrequent or absent menstruation may signal the condition. In women past adolescence, difficulty becoming pregnant or unexplained weight gain may be the first sign. It should be noted that most women with the condition have a number of small cysts in the ovaries. However, women may have cysts in the ovaries for a number of reasons, and it is the characteristic constellation of symptoms, rather than the presence of the cysts themselves that is important in establishing the diagnosis of PCOS. PCOS occurs in 5% to 10% of women and is the most common cause of [infertility](#). Women of all ethnicities affected.



What are the symptoms of polycystic ovarian syndrome (PCOS)?

The principal signs and symptoms of PCOS are related to menstrual disturbances and elevated levels of male hormones (androgens). Menstrual disturbances can include delay of [normal menstruation](#) (primary amenorrhea), the presence of fewer than normal menstrual periods (oligomenorrhea), or the absence of menstruation for more than three months ([secondary amenorrhea](#)). Menstrual cycles may not be associated with ovulation (anovulatory cycles) and may result in heavy bleeding. Symptoms related to elevated androgen levels include [acne](#), excess hair growth on the body (hirsutism), and male-pattern hair loss. Other signs and symptoms of PCOS include: [obesity](#) and [weight gain](#), elevated insulin levels and [insulin resistance](#) oily skin, [dandruff](#), [infertility](#), skin discolorations, [high cholesterol levels](#), [elevated blood pressure](#), and multiple, [small cysts in the ovaries](#). Any of the above symptoms and signs may be absent in PCOS, with the exception of irregular or no menstrual periods. All women with PCOS will have [irregular or no menstrual periods](#). Women who have PCOS do not regularly ovulate; that is, they do not release an egg every month. This is why they do not have regular periods and typically have [difficulty conceiving](#).

How is PCOS diagnosed?

The diagnosis of PCOS is generally made on the basis of clinical signs and symptoms as discussed above. The diagnosis is usually a clinical one based on the patient's history, physical examination, and laboratory testing. Serum levels of male hormones ([DHEA](#) and [testosterone](#)) may be elevated. However, levels of testosterone that are highly elevated are not unusual with PCOS and call for additional evaluation. Additionally, levels of a hormone released by the pituitary gland in the brain (LH) that is involved in ovarian hormone production are elevated.

What conditions or complications can be associated with PCOS

Women with PCOS are at a higher risk for a number of illnesses, including [high blood pressure](#), [diabetes](#), [heart disease](#), and [cancer of the uterus](#) (endometrial cancer). Infertility is common in women with PCOS. Because of the lack of ovulation, progesterone secretion in women with PCOS is diminished, leading to long-term unopposed estrogen stimulation of the uterine lining. This situation can lead to abnormal periods, breakthrough bleeding, or prolonged uterine bleeding in some women. Unopposed estrogen stimulation of the uterus is also a risk factor for the development of endometrial hyperplasia and [cancer of the endometrium](#) (uterine lining). However, medications can be given to induce regular periods and reduce the estrogenic stimulation of the endometrium

Obesity is associated with PCOS; a Obesity not only compounds the problem of insulin resistance and [type 2 diabetes](#) , but it also imparts cardiovascular risks. PCOS and obesity are associated with a higher risk of developing [metabolic syndrome](#). The risk of developing prediabetes and type 2 diabetes is increased in women with PCOS, particularly if they have a family history of diabetes. Obesity and insulin resistance, both associated with PCOS, are significant risk factor for the development of type 2 diabetes. Several studies have shown that women with PCOS have abnormal levels of LDL ("bad") cholesterol and lowered levels of HDL ("good") cholesterol in the blood. Elevated levels of blood triglycerides have also been described in women with PCOS. Changes in skin pigmentation can also occur with PCOS. Acanthosis nigricans refers to the presence of velvety, brown to black pigmentation often seen on the neck, under the arms, or in the groin. This condition is associated with obesity and insulin resistance and occurs in some women with PCOS.

What treatments are available for PCOS?

Treatment of PCOS depends partially on the woman's stage of life. For younger women who desire [birth control](#), the [birth control pill](#), especially those with low androgenic (male hormone-like) side effects can cause regular periods and prevent the risk of uterine cancer. Another option is intermittent therapy with the hormone progesterone. Progesterone therapy will induce menstrual periods and reduce the risk of uterine cancer, but will not provide contraceptive protection. For acne or excess hair growth, a water pill (diuretic) called [spironolactone](#) (Aldactone) may be prescribed to help reverse these problems. The use of spironolactone requires occasional monitoring of blood tests because of its potential effect on the blood potassium levels and kidney function. Electrolysis and over-the-counter depilatory creams are other options for

controlling excess hair growth .For women who desire [pregnancy](#), a medication called [clomiphene](#) can be used to induce ovulation (cause egg production). In addition,[weight loss](#) can normalize menstrual cycles and often increases the [possibility of pregnancy](#) in women with PCOS. Other, more aggressive, treatments for [infertility](#) (including injection of gonadotropin hormones and assisted reproductive technologies) may also be required in women who desire pregnancy and do not become pregnant on Clomid therapy. [Metformin](#) (Glucophage) is a medication used to treat type 2 diabetes. This drug affects the action of insulin and is useful in reducing a number of the symptoms and complications of PCOS. Metformin has been shown to be useful in the management of irregular periods, ovulation induction, weight loss, prevention of type 2 diabetes, and prevention of [gestational diabetes mellitus in women](#) with PCOS .Obesity that occurs with PCOS needs to be treated because it can cause numerous additional medical problems. The management of obesity in PCOS is similar to the management of obesity in general. Weight loss can help reduce or prevent many of the complications associated with PCOS, including type 2 diabetes and heart disease. Consultation with a dietician.

Summary

1)Polycystic ovarian syndrome (PCOS) is an illness characterized by irregular or no periods, acne, obesity, and excess hair growth. 2)Women with PCOS are at a higher risk for obesity, diabetes, high blood pressure, and heart disease. 3)With proper treatment, risks can be minimized. Ideal treatment is directed to each of the manifestations of PCOS