

PCOS **(Polycystic Ovary Syndrome)**

What is PCOS?

Polycystic ovary syndrome (PCOS) is a common condition of hormonal imbalance that can lead to irregular menstrual cycles, difficulty getting pregnant, weight gain and signs of elevated androgen levels (such as testosterone), including acne and unwanted hair growth on the face and body. Also, a pelvic ultrasound often shows “polycystic-appearing” ovaries. Symptoms are variable among patients and may or may not include all of the listed characteristics. We are not sure exactly why this hormonal balance occurs, but it does seem to have a genetic component.

PCOS Characteristics:

Menstrual Irregularity – Absent (Amenorrhea) or irregular and infrequent (Oligomenorrhea) periods; often regular cycles resume after weight loss.

Weight Gain - In about 50% of women with PCOS, gradual weight gain and obesity is present.

Acne, Male-pattern balding and Hair Growth – Acne, male-pattern balding and unwanted hair growth on the face, neck, chest, abdomen or thighs typically indicates elevated androgen levels associated with PCOS.

Infertility – Women with PCOS do not ovulate regularly, and this can make it more difficult to achieve pregnancy.

Potential Health Risks:

Endometrial Cancer - If ovulation does not occur, the lining of the uterus does not shed and re-grow as in a normal menstrual cycle. Instead, the lining will grow thicker. Prolonged absence of menstruation can increase a woman’s risk of endometrial overgrowth and possibly endometrial cancer.

Insulin Abnormalities – Increased insulin production and insulin resistance can occur in both normal-weight and overweight women with PCOS. This increases the risk of developing type II diabetes.

Heart Disease – Women who are obese and have insulin resistance or type II diabetes are at an increased risk for heart disease. Both weight loss and treatment for insulin abnormalities can decrease this risk.

Sleep Apnea – Sleep apnea is a condition associated with abnormal pauses in breathing during sleep. Untreated sleep apnea can lead to fatigue and various cardiovascular problems. Sleep apnea may occur in up to 50% of women with PCOS.

PCOS Diagnosis:

Signs & Symptoms – Symptoms of menstrual irregularity, signs of elevated androgen levels and/or infertility are usually the first clues to prompt a work-up for PCOS.

Blood Work – Blood work is typically recommended to rule out other conditions that could be causing your symptoms. This may or may not include checking a pregnancy test, thyroid (TSH) level, prolactin, testosterone and various other hormone levels. If you are diagnosed with PCOS, a fasting glucose and insulin level and cholesterol panel may be recommended.

Pelvic Ultrasound – An ultrasound is not necessary in the diagnosis of PCOS, but if performed may reveal “polycystic-appearing” ovaries.

PCOS Treatments:

Lifestyle Changes – Weight loss is one of the most effective approaches for managing irregular cycles, insulin abnormalities and signs of excess androgen levels. A combination of a low-calorie, low-sugar diet and increased physical activity is recommended for achieving optimal weight loss. Often times, even a modest amount of weight loss can lead to resumption of ovulation and pregnancy, as well as a reduction in acne and unwanted hair growth.

Oral Contraceptives – Oral contraceptives are the most commonly used treatments for regulating menstrual periods and treating symptoms of excess androgen levels in women with PCOS. If the oral contraceptive is stopped, irregular cycles generally return.

Cyclic Progesterone – Cycles of progesterone used for 10-14 days every 1-3 months can induce a period and reduce the risk of endometrial hyperplasia, but this will not help with symptoms of acne or unwanted hair growth.

Anti-androgen Drugs – Medications such as Spironolactone can help in the reduction of unwanted hair growth, male-pattern balding and acne, and may be recommended if oral contraceptives alone do not improve symptoms of androgen excess. These medications should be taken while using an effective form of birth control, as they are known to cause birth defects.

Insulin-sensitizing Drugs – Metformin (Glucophage®) is a treatment for type II diabetes that can improve symptoms of PCOS in selected patients by increasing the body's sensitivity to insulin. This medication may be recommended if you are not able to take oral contraceptives or if you have been diagnosed with insulin resistance or type II diabetes. Metformin can also be beneficial in improving ovulation when there is no obvious insulin resistance present.

Infertility Treatments – Typically, weight loss is the primary treatment for women with PCOS who are overweight and unable to become pregnant. Metformin (Glucophage®) may also be considered for stimulating ovulation in women with or without obvious insulin resistance. Additional measures may include the use of Clomiphene (Clomid®) or Letrozole (Femara®) to stimulate ovulation or referral to a reproductive specialist to pursue other methods of fertility treatment.