



## About PCOS

Polycystic Ovarian Syndrome (PCOS) is the most common hormonal reproductive problem in women of childbearing age. It can affect a woman's menstrual cycle, fertility, hormones, insulin production, heart, blood vessels and appearance. Though its exact cause is unknown, up to 10% of reproductive-aged women suffer from the disorder.

### Symptoms of PCOS may include:

- High levels of male hormones (androgens)
- Irregular or no menstrual cycle
- High incidence of small fluid-filled ovarian cysts
- Infertility or inability to get pregnant
- Increased growth of hair on the face, chest, stomach, back, thumbs or toes
- Acne, oily skin or dandruff
- Pelvic pain
- Deepening voice
- Weight gain or obesity
- Type 2 diabetes
- High cholesterol
- High blood pressure
- Male-pattern baldness or thinning hair
- Patches of thickened and dark brown or black skin on the neck, arms, breasts or thighs
- Skin tags or tiny excess flaps of skin in the armpits or neck area
- Sleep apnea or excessive snoring

## What are the risks of PCOS?

PCOS, left untreated, increases a woman's risk for diabetes, cardiovascular disease, stroke, and cancer of the endometrium and breast. Women with PCOS are also at risk for infertility, miscarriage and complications of pregnancy including gestational diabetes and pregnancy-induced hypertension.

## What causes PCOS?

Although no one knows the exact cause of PCOS, it has been noted that many women with the disorder have a mother or sister with PCOS. Because many women with PCOS are overweight, researchers are studying the relationship between PCOS and the body's production of excess insulin, which can lead to acne, excessive hair growth, weight gain and ovulation problems.

## How is PCOS diagnosed?

There is no single test to diagnose PCOS. Your doctor will use a number of diagnostic tools, including medical history, physical exam, Body Mass Index (BMI) measurement, ultrasound, and pertinent lab tests (PCOS Lab Panel) to determine whether you have PCOS.



150 Sargent Drive, 2nd Floor  
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[www.yalefertilitycenter.org](http://www.yalefertilitycenter.org)

Office Hours: M-F 8:30 am - 5 pm; evening appointments available upon request



## **Living with PCOS**

Because there is no cure for PCOS, the multidisciplinary team at PPCOS@YFC focuses on managing the disorder through a combination of lifestyle modifications and medical interventions based on your individual needs. Lifestyle Modifications:

**Diet & Exercise** – Maintaining a healthy weight helps manage PCOS by lowering glucose levels, using insulin more efficiently and regulating the menstrual cycle.

**Nutrition Counseling** – Our trained and dedicated nutritionists offer individualized assessment and nutritional plans tailored to each patient's physical and metabolic profile.

**Treatment of Cardiovascular Disease (CVD) and Diabetes Risk** – We complete a detailed metabolic assessment and risk profile for each patient featuring a combination of weight loss, exercise and smoking cessation guidelines to lower the risk of CVD and diabetes.

**Vitamins** – Ongoing YFC studies show that Vitamin D and calcium improve the action of insulin and help relieve PCOS symptoms.

**Symptom Management** - We offer on-site medical expertise in the management of bothersome symptoms of PCOS including excessive hair, acne, and psychological distress.

### **Medical Interventions:**

**Birth Control** – For women who don't want to become pregnant, birth control pills can regulate menstrual cycles, reduce male hormone levels, and help to clear acne.

**Diabetes and Cardiovascular Disease** – We treat underlying conditions such as hyperinsulinemia, hypertension and dyslipidemia with appropriate medication, which lessens PCOS symptoms.

**Management of PCOS-Related Infertility** – Following a basic infertility workup, YFC experts individualize management strategies to minimize the risks of ovarian hyperstimulation and multiple pregnancy in patients with PCOS. Medications used include Clomid, Gonadotropins and Aromatase inhibitors.

**Pregnancy Management** – Our specialists offer on-site pre-conception and peri-conception consultations for patients with PCOS. We carefully monitor outcomes to help the medical community understand the fetal and perinatal implications of PCOS diagnosis.

**Excessive Hair Growth (Hirsutism)** – A number of medications, including hormone treatments, spironolactone, flutamide and finasteride, have been shown to decrease unwanted hair growth when non-medical treatments such as electrolysis and laser hair removal are ineffective.



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# The Practitioners of PPCOS



**Dr. Lubna Pal** is Director of the Reproductive Aging and Bone Health Program at Yale Reproductive Endocrinology, specializing in infertility, reproductive aging and menopause, low bone mineral density, and reproductive endocrinology. She is Board Certified in both Obstetrics & Gynecology and Reproductive Endocrinology & Infertility. Her clinical interests are reproductive endocrinopathies including polycystic ovarian syndrome (PCOS), central reproductive disturbances, and obesity-related reproductive dysfunction. She is currently studying Vitamin D therapy as a treatment for women suffering from PCOS.

**Dr. Pinar Kodaman** joined the Section of Reproductive Endocrinology and Infertility in the Department of Obstetrics, Gynecology & Reproductive Sciences in July 2008. She attended Yale Medical School in the combined MD/PhD program, researching the role of oxidative stress in ovarian function. Following graduation, Dr. Kodaman joined our fellowship in Reproductive Endocrinology and Infertility where she is currently a Women's Reproductive Health Research Scholar. Her research interests include endometrial angiogenesis and endothelial dysfunction; clinical interests include PCOS, reproductive surgery and infertility.

**Amy Krystock, RD**, is a registered dietitian at Yale New Haven Hospital specializing in weight loss, diabetes counseling, eating disorders and employee wellness. She completed her dietetic training at YNH and will complete her master's in clinical nutrition from the University of Connecticut in February 2009. Her research focuses on disordered eating pathology in athletes and protein metabolism. Amy employs a total lifestyle modification approach to nutrition counseling and customizes diet and exercise programs to fit the needs of each patient.

**Beth W. Rackow, MD**, is Board-Certified in Obstetrics & Gynecology and Board-Eligible in Reproductive Endocrinology & Infertility. After completing her residency at the Hospital of the University of Pennsylvania, she was Fellowship-trained at Yale in Reproductive Endocrinology and Infertility. Her clinical interests include infertility, reproductive surgery, advanced endoscopic surgery, pediatric and adolescent gynecology, polycystic ovarian syndrome (PCOS), endometriosis, premature ovarian failure, and menstrual disorders.

**Dorothy A. Greenfeld, LCSW**, received her MSW at the Columbia University School of Social Work in 1982 and joined the YFC staff in 19XX. Her clinical interests include individual and couples counseling in all phases of reproduction and pregnancy, particularly the emotional impact of infertility, pregnancy loss, and multi-fetal pregnancies; egg and sperm donation; and gestational surrogacy.



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