

**PREVENTIVE WOMEN'S HEALTH**  
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Polycystic Ovarian Syndrome (PCO)

PCO is not really a disease but rather a hormone problem originating in the ovary. The ovaries are also not polycystic but rather appear a little larger than normal and under the microscope have multiple small cystic cavities. PCO has a wide range of clinical presentations in patients depending on the severity of the hormone problem.

Cause

The underlying cause appears to be a lack of ovulation-anovulation (the ovary does not release an egg each month).

In the normal menstrual cycle, after ovulation the ovary makes the second hormone progesterone which causes the period to occur two weeks after ovulation if pregnancy doesn't occur. With anovulation, the ovary doesn't make progesterone so periods don't occur or the patient has persistent irregular bleeding.

The ovary also makes more testosterone (male hormone) than normal which leads to excessive body hair.

Obesity is also associated with this syndrome, as is elevated blood pressure, elevated cholesterol and a risk of diabetes.

Patients tend to have elevated insulin levels (insulin resistance). Insulin normally transfers blood sugar out of the blood and into body tissue cells. If insulin is not present or non-functional the sugar stays in the blood causing elevated blood sugar and diabetes.

Clinical Presentation

- 1) Anovulation- lack of menstrual periods or irregular heavy bleeding
- 2) Obesity
- 3) Hirsutism- excessive atypical body hair
- 4) Infertility- unable to get pregnant

Lab Tests

Hormone tests, thyroid, blood sugar, cholesterol

Pelvic ultrasound may be helpful to check on the size of the ovaries

A fasting **insulin** test is done to check for insulin resistance and diabetic risk

Although these tests are done, the diagnosis is usually made on the clinical presentation

## Treatment

- 1) Perform a D&C if necessary from the menstrual history to rule out any pre-cancerous cells in the uterus
- 2) Weight loss program- exercise, low carb diet
  - lowers weight, improves insulin resistance
- 3) BCP (birth control pills) to help regulate abnormal menstrual periods
- 4) BCP or hormones (progesterone) to suppress ovarian testosterone production
- 5) Treat elevated cholesterol and blood pressure
- 6) Ovulation inducing fertility pills if the patient wants to get pregnant
- 7) Glucophage to treat insulin resistance- can lead to weight loss, normal menses
- 8) Medications, electrolysis or laser light therapy to remove excessive hair growth