

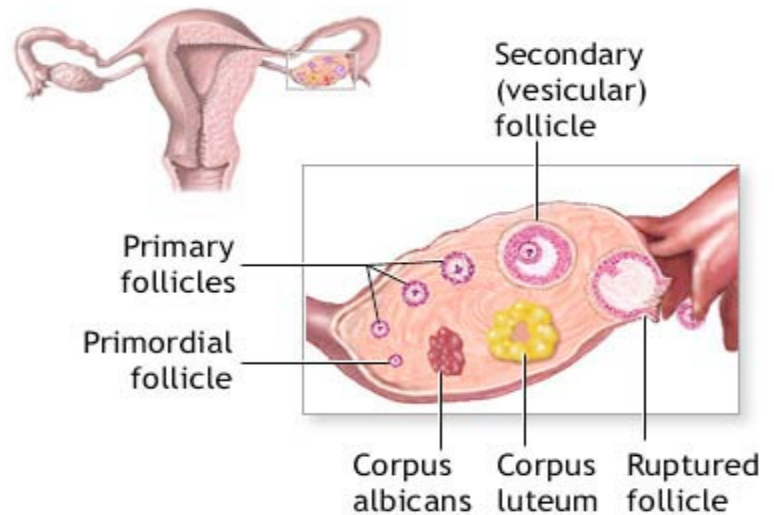
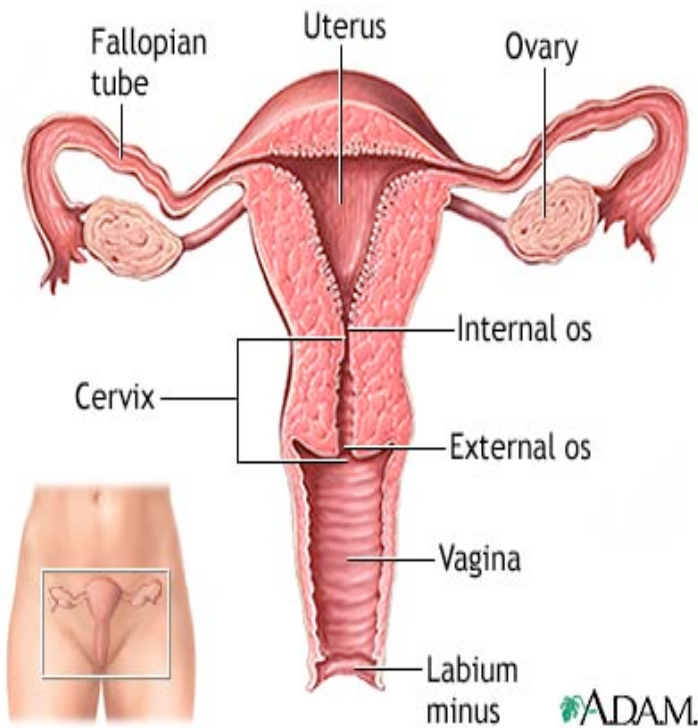
# Polycystic Ovarian Syndrome (PCOS)

## Definition

Polycystic ovary disease is a condition in which there are many small cysts in the ovaries, which can affect a woman's ability to get pregnant.

## Alternative Names

Polycystic ovaries; Polycystic ovarian syndrome (PCOS); Stein-Leventhal syndrome; Polyfollicular ovarian disease



## Causes

Polycystic ovary disease affects hormone cycles. Hormones help regulate the normal development of eggs in the ovaries. It is not completely understood why or how hormone cycles are interrupted, although there are several ideas.

Follicles are sacs within the ovaries that contain eggs. In polycystic ovary disease, there are many poorly developed follicles in the ovaries. The eggs in these follicles do not mature and, therefore, cannot be released from the ovaries. Instead, they form cysts in the ovary.

This can contribute to infertility. The immature follicles and the inability to release an egg (ovulate) are likely caused by low levels of follicle stimulating hormone (FSH), and higher-than-normal levels of male hormones (androgens) produced in the ovary.

Women are usually diagnosed when in their 20s or 30s. Women with this disorder often have a mother or sister who has symptoms similar to polycystic ovary disease.

# Polycystic Ovarian Syndrome (PCOS)

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## Symptoms

If you have polycystic ovary disease, you are likely to have some of the following symptoms:

- Abnormal, irregular, or very light or infrequent menstrual periods
- Absent periods, usually (but not always) after having one or more normal menstrual periods during puberty (secondary amenorrhea)
- Acne that gets worse
- Decreased breast size
- Development of male sex characteristics (virilization), such as increased body hair, facial hair, a deepening of the voice, male-pattern baldness, and enlargement of the clitoris.
- Diabetes
- Increased hair growth; body hair may be in a male pattern
- Infertility
- Poor response to the hormone, insulin (insulin resistance), leading to a build-up of insulin in the blood
- Weight gain, or obesity

## Exams and Tests

During a pelvic examination, the health care provider may note an enlarged clitoris (very rare finding) and enlarged ovaries.

Tests include:

- Abdominal ultrasound
- Abdominal MRI
- Biopsy of the ovary
- Estrogen levels
- Fasting glucose and insulin levels
- FSH levels
- Laparoscopy
- LH levels
- Male hormone (testosterone) levels
- Urine 17-ketosteroids
- Vaginal ultrasound

Blood tests that may be done include:

- Pregnancy test (serum HCG)
- Prolactin levels
- Thyroid function tests

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## Treatment

### Medications used to treat the symptoms of polycystic ovary disease include:

- Birth control pills
- Clomiphene citrate
- Flutamide
- Spironolactone

Treatment with clomiphene citrate causes the pituitary gland to produce more FSH. This causes the egg to mature and be released. Sometimes women need stronger fertility drugs to get pregnant.

In women with polycystic ovary disease who also have insulin resistance, glucophage (Metformin), a medication that makes cells more sensitive to insulin, has been shown to make ovulation normal.

Losing weight (which can be difficult) may help to reduce the high insulin levels in the blood. For women with this condition who are overweight, weight loss can reduce insulin resistance, stimulate ovulation, and improve fertility rates.

### Outlook (Prognosis)

Women who have this condition can get pregnant with the right surgical or medical treatments. Pregnancies are usually normal.

### Possible Complications

- Increased risk of endometrial cancer
- Infertility
- Obesity-related conditions, such as high blood pressure and diabetes
- Possible increased risk of breast cancer

### When to Contact a Medical Professional

Call for an appointment with your health care provider if you have symptoms of this disorder.