

## Polycystic Ovary Syndrome (PCOS)

### What are common signs and symptoms of polycystic ovary syndrome (PCOS)?

Common PCOS signs and symptoms include the following:

- ❖ Irregular menstrual periods—Menstrual disorders can include absent periods, periods that occur infrequently or too frequently, heavy periods, or unpredictable periods.
- ❖ Infertility—PCOS is one of the most common causes of female infertility.
- ❖ Obesity—Up to 80% of women with PCOS are obese.
- ❖ Excess hair growth on the face, chest, abdomen, or upper thighs—This condition, called hirsutism, affects more than 70% of women with PCOS.
- ❖ Severe acne or acne that occurs after adolescence and does not respond to usual treatments
- ❖ Oily skin
- ❖ Patches of thickened, velvety, darkened skin called acanthosis nigricans
- ❖ Multiple small cysts on the ovaries

### What causes PCOS?

Although the cause of PCOS is not known, it appears that PCOS may be related to many different factors working together. These factors include

- insulin resistance,
- increased levels of hormones called androgens,
- an irregular menstrual cycle.

### What is insulin resistance?

Insulin resistance is a condition in which the body's cells do not respond to the effects of insulin. When the body does not respond to insulin,

- the level of glucose in the blood increases.
- This may cause more insulin to be produced as the body tries to move glucose into cells.
- Insulin resistance can lead to diabetes mellitus.

- It also is associated with acanthosis nigricans.

## What can high levels of androgens lead to?

When higher than normal levels of androgens are produced,

- the ovaries may be prevented from releasing an egg each month (a process called ovulation).
- High androgen levels also cause the unwanted hair growth and acne seen in many women with PCOS.

## What can irregular menstrual periods lead to?

Irregular menstrual periods can lead to

- infertility
- in some women, the development of numerous small cysts on the ovaries.

## What are the health risks for women with PCOS?

PCOS affects all areas of the body, not just the reproductive system.

- It increases a woman's risk of serious conditions that may have lifelong consequences.
- Insulin resistance increases the risk of type 2 diabetes mellitus and cardiovascular disease.
- Another condition that is associated with PCOS is metabolic syndrome. This syndrome contributes to both diabetes and heart disease.
- Women with PCOS tend to have a condition called endometrial hyperplasia, in which the lining of the uterus (the endometrium) becomes too thick. This condition increases the risk of endometrial cancer.

## Are treatments available for women with PCOS?

A variety of treatments are available to address the problems of PCOS.

Treatment is tailored to each woman according to symptoms, other health problems, and whether she wants to become pregnant.

## How can combined hormonal birth control pills be used to treat women with PCOS?

Combined hormonal birth control pills can be used for long-term treatment in women with PCOS who do not wish to become pregnant.

- Combined hormonal pills contain both estrogen and progestin.
- These birth control pills regulate the menstrual cycle
- reduce hirsutism and acne by decreasing androgen levels.
- They also decrease the risk of endometrial cancer.

## What effect can weight loss have on women with PCOS?

For overweight women, weight loss alone often regulates the menstrual cycle.

- Even a small weight loss of 10–15 pounds can be helpful in making menstrual periods more regular.
- Weight loss also has been found to improve cholesterol and insulin levels and relieve symptoms such as excess hair growth and acne.

## How can insulin–sensitizing drugs help treat women with PCOS?

Insulin–sensitizing drugs used to treat diabetes frequently are used in the treatment of PCOS.

- These drugs help the body respond to insulin.
- In women with PCOS, they can help decrease androgen levels and improve ovulation.
- Restoring ovulation helps make menstrual periods regular and more predictable.

## What can be done to increase the chances of pregnancy for women with PCOS?

Successful ovulation is the first step toward pregnancy.

- For overweight women, weight loss often accomplishes this goal.
- Medications also may be used to cause ovulation.
- Surgery on the ovaries has been used when other treatments do not work. However, the long–term effects of these procedures are not clear.