



changes may begin as early as the very first menstrual cycle. In other women with PCOS, changes occur over time.

Signs and symptoms vary in women with PCOS and may include:

- ♀ Excess hair on the face and body (known as hirsutism)
- ♀ Acne
- ♀ Darkened color and change in texture of the skin along the neck and armpits and on the groin and inner thighs
- ♀ Obesity
- ♀ Irregular menstrual periods or no periods
- ♀ Trouble getting pregnant
- ♀ Vaginal yeast infections
- ♀ Hair loss

Your doctor will do these tests and exams:

- ♀ a physical exam
- ♀ blood tests to check hormone levels
- ♀ an ultrasound scan.

#### *How is it treated?*

Your treatment depends on how severe your symptoms are and whether you are trying to get pregnant.

If you are not trying to get pregnant, you can be treated with hormones. Your doctor may prescribe birth control pills. If you take hormones or birth control pills, you will have regular men-

strual cycles. You may have less abnormal hair growth. This treatment will also reduce your risk of developing endometrial hyperplasia, a condition that can become uterine cancer.

If you are trying to get pregnant, your doctor may prescribe fertility drugs. In some cases, you may have surgery called ovarian drilling to destroy the cysts ovarian tissue. This is performed by laparoscopy and usually results in regular menstrual cycles for a while. Sometimes it cures the problem.

Your doctor may recommend electrolysis to remove excess body or facial hair. If you are obese, your doctor may suggest a weight control program.

#### *How long will the effects last?*

With treatment your symptoms may improve, but there is no cure for PCOS. The problem will continue until your ovaries stop producing hormones at menopause.

Many women with this disorder who want to become pregnant are treated successfully with fertility drugs, but it can be a long, complicated treatment.

Remember, PCOS increases your risk of uterine cancer, diabetes, and heart disease. It is important for you to be checked by your doctor for these problems.

#### *How can I take care of myself?*

Follow your doctor's prescribed treatment.

Keep all your follow-up appointments. Your doctor will want to see you regularly. He will look for changes in your ovaries or uterus. You may need blood tests to check your hormones or to see how well the treatment is working. He may want to repeat a pelvic ultrasound yearly.

Information contained in this booklet is meant for informational purposes only and should not substitute the visit to your doctor nor his/her advice for your health care.

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## POLYCYSTIC OVARY SYNDROME PCOS



**MANSOOR  
MEDICAL**  
FOR WOMEN'S HEALTH

**DR. RAYMOND MANSOOR**

B Sc , MB BS , DM (OG, UWI), FACOG  
OBSTETRICIAN & GYNAECOLOGIST

Tanner St. & Corn Alley  
P.O. Box W1361  
St. John's, Antigua

Tel/Fax: 463 2232/3  
info@mansoormedical.org  
www.mansoormedical.org

# Polycystic Ovary Syndrome (PCOS)

## What is polycystic ovary syndrome?

Polycystic ovary syndrome (PCOS) is a disorder in which many benign cysts form on the ovaries under a thick, white covering. It causes your menstrual cycle to be irregular or you may have no periods at all. PCOS can make it hard for you to become pregnant. It causes other problems as well.

The two ovaries are part of the female reproductive system. They produce eggs and the female hormones—estrogen and progesterone. Ovarian cysts are fluid-filled sacs in or on an ovary.

A woman who has PCOS was born with the condition. Symptoms may not occur until later in life, though. PCOS is a genetic disorder. That means women with PCOS often have a family member with the condition. Their children also may be affected.

This disorder is most common in women less than 30 years old. It has also been called Stein-Leventhal syndrome.

## How does it occur?

Polycystic ovary syndrome is caused by an abnormal production of two hormones by the pituitary gland in the brain (see Table 1). These two hormones are LH (luteinizing hormone) and FSH (follicle-stimulating hormone). Imbalance of these hormones prevents the ovaries from releasing an egg each month. The ovaries produce more of the male hormone testosterone. They continue to produce estrogen but not progesterone.

Doctors do not know what causes this hormone imbalance.

## What are the symptoms?

The symptoms may include:

- ♀ irregular menstrual periods, particularly long cycles, or no periods at all
- ♀ very light or very heavy bleeding during your period
- ♀ trouble getting pregnant
- ♀ more hair on your face, chest, and lower abdomen
- ♀ obesity
- ♀ acne.

Many young women with polycystic ovaries start having menstrual periods at a normal age. But then, after a year or two of regular menstruation, the periods become quite irregular and then infrequent.

**TABLE 1: Key Hormones in Women**

Hormones are produced by the body to send messages from one area to another. They are produced in both men and women in different amounts. Certain hormones control a woman's menstrual cycle and her ability to get pregnant.

Follicle-stimulating hormone (FSH) and luteinizing hormone (LH) are made by the pituitary gland, a small organ at the base of the brain. FSH causes eggs to mature in the ovaries. LH triggers their release from the ovaries (ovulation).

Estrogen and progesterone are produced by the ovaries. Estrogen signals the endometrium to thicken during each menstrual cycle. After ovulation, progesterone causes blood vessels in the endometrium to swell and other changes to occur to prepare for a possible pregnancy.

Androgens, so-called male hormones, are made by the ovaries in women and the testes in men. They are used by the ovaries to make estrogen, the so-called female hormone.



## Insulin!

Another hormone that plays a role in PCOS is insulin. Insulin is a hormone that controls the body's use of sugar (glucose). Many women with PCOS produce too much insulin or the insulin they produce doesn't work as it should. This is one reason why women with PCOS tend to gain weight or have a hard time losing weight. They also have an increased risk of diabetes (a condition in which the levels of sugar in the blood are too high).

Insulin interrupts the normal growth of the follicle in the ovaries. The ovaries slowly become enlarged because of the number of the eggs they contain.

## Long-Term Health Risks

Many women with PCOS are at an increased risk of certain health problems. They may need to be tested more often and may require treatment. Treatment will help prevent other problems.

For instance, PCOS is linked to heart disease, diabetes, and high blood pressure. Also, in some women, the presence of estrogen without progesterone increases the risk that the lining of the uterus (endometrium) will grow too much. This is a condition known as endometrial hyperplasia. If not treated, endometrial hyperplasia may turn into cancer.

## How is it diagnosed?

In some women with PCOS, hormone