



## **Polycystic Ovary Syndrome (PCOS)**

Polycystic (pol ee SISS tik) Ovary Syndrome (PCOS) is a common problem in women that begins in the teenage years. It is an imbalance of hormones (chemical messengers) in the brain and ovaries.

### **Signs and Symptoms**

- Irregular periods
- Overweight or trouble losing weight
- Dark patches of skin around neck or underarms
- Acne
- Cysts on the ovaries
- Unwanted hair growth on face, belly, back, or chest

### **Cause**

When a girl has PCOS, there is an imbalance in the hormones that regulate the menstrual cycle. During a normal menstrual cycle, the ovary makes estrogen (hormone), causing an egg to be released each month (ovulation). If the egg is not fertilized (pregnancy), you have a period. This cycle repeats each month.

With PCOS, the hormones that regulate periods are out of balance. Periods may become irregular, or stop completely. Sometimes, if eggs are not released, small sacs filled with fluid (cysts) may form on the ovaries. Some believe the hormonal imbalance may be caused by high insulin levels linked with weight gain. While many women with PCOS are obese or overweight, some are normal weight or thin. Women who are not overweight can still have one or more of these symptoms: severe acne, irregular periods, and unwanted hair growth.

Insulin is a hormone made by the pancreas. High levels of insulin may cause the ovary to make too much testosterone, and not enough estrogen. While all women make a little bit of testosterone, women with PCOS make too much. Acne and unwanted hair may result from too much testosterone.

Dark patches of skin may develop from high insulin levels associated with extra weight gain. These often form on the back of the neck (or encircle the neck) and sometimes the underarm area. This rash is called acanthosis (ak an THO sis). Some girls may develop problems with high blood pressure and cholesterol. There is no known cure, but the condition can be managed with healthy nutrition, exercise, and medicine.

## Diagnosis

There is no one specific test used to diagnose PCOS. The doctor diagnoses PCOS by ruling out other disorders and knowing PCOS symptoms. The doctor will ask questions about your periods, exercise and eating habits, then do a physical exam. Blood tests check hormone levels. An ultrasound may show if there are cysts on the ovaries, or other abnormalities.

## Treatment

The goal of treatment is to make hormone levels and periods normal, to reduce the unwanted symptoms (acne, hair growth), and to lower the risk for other problems.

- **Nutrition and Exercise** - If you eat small, healthy, balanced meals and aim for at least 30 minutes of physical activity every day it will help you to lose weight and lower the high levels of insulin and testosterone. Sometimes, healthy nutrition and exercise is all the treatment needed to help regulate hormone levels.
- **Shaving, waxing, hair removal creams, and laser hair removal** – All of these help get rid of unwanted hair growth from the skin.
- **Medicines**
  - **Birth Control Pill** – The pill is taken by mouth. The hormones in the pill help to regulate your period. The pill can also help lower testosterone levels and reduce the amount of acne (see Helping Hand HH-IV-3, *Birth Control Pills*).
  - **Metformin** – This is also a pill you take by mouth. It helps maintain normal blood sugar levels.
  - **Topical (skin) creams and antibiotics** – These are rubbed on the skin. They lessen the effects of acne.

There are also other medicines that are used to treat acne and unwanted hair growth. Your doctor or nurse will go over the common side effects of each medicine given to treat PCOS. Be sure to ask your doctor about them before choosing one to use.

### If PCOS is not treated, you will be at a higher risk of:

- Type 2 diabetes
- Obstructive Sleep Apnea
- Abnormal bleeding from the uterus
- Depression
- Difficulty having children
- High blood pressure and high cholesterol

## When to Call Your Doctor

**Call your doctor right away** if you have one or more of these allergic reactions when you take any medicine:

- skin rash
- itching
- hives
- swelling of the lips, mouth, tongue, or throat

## Other Information

- Keep track of when your periods start and stop in a journal. Bring the journal with you to appointments so your doctor can check your cycles.
- Take all medicines as instructed. Remember to keep all medicines out of the reach of children.
- Keep all of your follow-up appointments.

Call your doctor or nurse with questions any time at \_\_\_\_\_.