Polycystic Ovary Syndrome: A guide for Patients and Parents

What is polycystic ovary syndrome (PCOS)?
PCOS is a health condition in girls associated with symptoms of excess body hair (hirsutism), severe acne, and menstrual cycle problems. The excess body hair can be on the face, chin, neck, back, chest, breasts, or abdomen. Problems with the menstrual cycle can be months without any periods, heavy, long-lasting periods, or periods that happen too often. Some girls, but not all, have small cysts on their ovaries. About 60-70% of girls with PCOS are overweight or obese, but some are normal weight or thin. Girls may have mothers, aunts, or sisters who have a history of the similar problems, or family members with type 2 diabetes. PCOS may also be called “ovarian hyperandrogenism”. This means that the ovaries make too much androgen, the hormones that cause hair growth and acne in puberty and adults.

What causes PCOS?
This is not completely known. It does seem to “run” in families. Some genetic differences in the ovaries and/or adrenal glands of girls may also cause PCOS. PCOS seems to be related to being insulin-resistant in most girls. Being insulin resistant means that a girl’s body has to make more insulin than usual to make the cells take up glucose from the blood. The higher insulin levels could make the ovaries produce too much androgen, preventing regular menstrual periods. Some girls who are insulin resistant may have problems with blood pressure or cholesterol, which are risks for heart disease in adults.

How is PCOS diagnosed?
There is not a single lab test to absolutely diagnose PCOS: the diagnosis is made by ruling out other diseases and recognizing the combination of problems that are seen in PCOS such as irregular periods, acne, body hair, and often, insulin resistance. An ultrasound of the ovaries may be helpful and show a string of small cysts along the outsides of the ovaries.

How is PCOS treated?
Treating PCOS means treatment of acne, excess body hair, abnormal menstrual periods and insulin resistance, if present.

Acne can be treated with medication applied to the skin, antibiotics, estrogen and progesterone medication taken by mouth (which also regulates periods), or a pill called spironolactone which blocks the androgens that cause the acne.
Extra body hair can be reduced with estrogen and progesterone medication (oral contraceptive) by mouth and/or spironolactone. Many girls also try different ways to get rid of the unwanted hair using laser treatment, waxing, or shaving. A medication called Vaniqua can be applied twice a day to unwanted areas of hair to prevent new hair from growing. It is usually not covered by insurance and must be used every day, or the hair will grow back.

Abnormal menstrual periods can be treated several different ways. Many girls take an oral contraceptive, a pill containing estrogen and progesterone, to regulate periods. Other treatment options are a pill called progesterone given for 5-10 days every 1-3 months to bring on a period, an estrogen and progesterone patch or an intrauterine device (IUD). Some girls cannot use some of these medications because of other health conditions, so it is important to share your whole medical and family history with your health provider.

Reducing insulin resistance may also improve the signs and symptoms of PCOS. At least 150 minutes of physical activity that raises the heart rate every week decreases insulin resistance. A healthy diet without sweet drinks like sodas and many concentrated carbohydrates and processed foods will also decrease insulin resistance as a result of some weight loss. Metformin is a medication that may be used to treat PCOS. It helps reduce insulin resistance, and can be associated with a small amount of weight loss. It has not yet been approved by the FDA (Federal Drug Administration) to be used for PCOS but it is usually safe and often helps.

**Pregnancy and PCOS**

A girl with PCOS can become pregnant, even if she is not having regular periods. Any girl with PCOS who is having sex should use contraception if she does not wish to become pregnant. If a woman with PCOS wants to have a child and is having difficulty becoming pregnant, many options are available to help induce pregnancy. Some PCOS medications cannot be used during pregnancy, so discuss your plans honestly with your healthcare provider.

_Ellen Lancon Connor, MD and the PES/AAP-SoEn Patient Education Committee_