Polycystic Ovary Syndrome

Cecily never really worried that her periods weren't regular because, like many girls, she assumed her monthly cycle would take time to settle down. But then Cecily's periods stopped for several months, so she went to see her doctor.

The doctor noticed that Cecily's acne had worsened and that she had gained a lot of weight since her last appointment. She said she wanted to check Cecily for a condition called **polycystic ovary syndrome (PCOS)**.

**What Is Polycystic Ovary Syndrome?**

Polycystic (pronounced: pol-ee-SISS-tik) ovary syndrome is a common health problem that can affect teenage girls and women. Although no one really knows what causes PCOS, it seems to be related to an imbalance in a girl's hormones.
Both girls and guys produce sex hormones, but in different amounts. In girls, the ovaries produce the hormones **estrogen** and **progesterone**, and also **androgens**. These hormones regulate a girl's menstrual cycle and ovulation, when the egg is released. Even though androgens are sometimes referred to as "male hormones," every female produces them.

In girls with PCOS, the ovaries produce higher than normal amounts of androgens, and this can interfere with egg development and release. Sometimes instead of the eggs maturing, cysts, which are little sacs filled with liquid, develop. Instead of an egg being released during ovulation, like during a normal menstrual cycle, the cysts build up in the ovaries and may become enlarged. Because girls with PCOS are not ovulating or releasing an egg each month, it's common for them to have irregular or missed periods.

Although PCOS (which used to be called Stein-Leventhal syndrome) was first recognized in the 1930s, doctors can't say for sure what causes it. Research has suggested that PCOS may be related to increased insulin production in the body. Women with PCOS may produce too much insulin, which signals their ovaries to release extra male hormones. PCOS seems to run in families, too, so if someone in your family has it, you might be more likely to develop it.

If PCOS is not treated properly, it can put a girl at risk for lots of problems. Girls with PCOS are more likely to have infertility, excessive hair growth, acne, obesity, diabetes, heart disease, high blood pressure, abnormal bleeding from the uterus, and cancer.

The good news is that, although there's no cure for PCOS, it can be treated. The most important step is diagnosing the condition, because getting treatment for PCOS reduces a girl's chances of developing serious problems.

**What Are the Signs and Symptoms?**

A key sign of PCOS is irregular or missed periods because the effects of the condition on the ovaries can make a girl stop ovulating. However, because it can take up to 2 years after her first period for a girl's menstrual cycle to become regular, it can be hard to recognize missed periods as a sign of
PCOS in teen girls. Imbalanced hormone levels can cause changes in a girl's entire body, not just her ovaries.

So doctors also look for these other signs that might indicate PCOS:

- very heavy periods or irregular periods
- weight gain, obesity, or difficulty maintaining a normal weight, especially when the extra weight is concentrated around the waist
- a condition called hirsutism (pronounced: HER-suh-tiz-um), where a girl grows extra hair on her face, chest, abdomen, nipple area, or back (a little of this is normal for most girls, though)
- thinning hair on the head (doctors call this alopecia)
- acne and clogged pores
- darkened, thickened skin around the neck, armpits, or breasts (this is called acanthosis nigricans)
- high blood pressure, high cholesterol, or diabetes mellitus (high levels of sugar in your blood)

Girls who show certain signs of puberty early — such as girls who develop underarm or pubic hair before the age of 8 — may be at greater risk of having PCOS later on.

**How Is Polycystic Ovary Syndrome Diagnosed?**

If you've taken your concerns about your body to your doctor, you're on the right track. Your doctor may refer you to a gynecologist or an endocrinologist for a diagnosis.

The gynecologist or endocrinologist will ask you about any concerns and symptoms you have, your past health, your family's health, any medications you're taking, any allergies you may have, and other issues. He or she will also ask you lots of questions specifically about your period and its regularity. This is called the **medical history**.

In addition to your medical history, your doctor will do a **physical examination**, which includes checking your weight, and checking especially for physical signs such as acne, hair growth, and darkened skin. The doctor may perform a **gynecologic examination** to rule out other possible causes of your symptoms, but this is not always necessary for diagnosis.
A doctor may also perform blood tests to diagnose PCOS or other conditions, such as thyroid or other ovarian or gland problems. Blood tests allow doctors to measure androgen, insulin, and other hormone levels. The results of these tests can help doctors to determine the type of treatment a girl will receive.

Your doctor also might order an ultrasound to look at your ovaries and to determine if you have cysts or other abnormalities of the ovaries. Because cysts are not always visible, this test is not always used.

Early diagnosis and treatment for PCOS are important because the condition can put girls at risk for long-term problems. Getting treated for PCOS is also a good idea if you want to have a baby someday — PCOS often causes infertility if it's not treated. But when PCOS is treated properly, many women with the condition have healthy babies.

Also, many girls with PCOS can get pregnant. If you are sexually active, you need to use condoms every time you have sex in order to avoid getting pregnant or getting a sexually transmitted disease (STD). This is important whether or not you have PCOS.

**How Is It Treated?**

Although there's no cure for PCOS, there are several ways that the condition can be treated and managed.

If a girl is overweight or obese, a doctor will recommend that she lose weight. Weight loss can be very effective in lessening many of the health conditions associated with PCOS, such as high blood pressure and diabetes. Sometimes weight loss alone can restore hormone levels to normal, causing many of the symptoms to disappear or become less severe.

Your doctor or a registered dietitian can look at your food intake and your exercise and activity to tailor a weight-loss program for you. Exercise is a great way to help combat the weight gain that often accompanies PCOS as well as a way to reduce bloating, another symptom girls with PCOS sometimes experience.
Sometimes doctors prescribe medications to treat PCOS. A doctor might first have a girl try birth control pills to help control hormone levels in her body and regulate her menstrual cycle. Birth control pills may help control acne and excessive hair growth in some girls, but they don't work for everyone.

Other medications used to treat PCOS include antiandrogens, which counter the effects of excess androgens on a girl's body. Antiandrogens can help clear up skin and hair growth problems in girls with PCOS.

Another medication, metformin, which is used to treat diabetes, can lower insulin levels. In some girls with PCOS, it can help control ovulation and androgen levels. This can make a girl's menstrual cycles more regular. Some girls and women treated with metformin have also experienced weight loss and lowering of high blood pressure.

**Coping With Polycystic Ovary Syndrome**

Having PCOS can be hard on a girl's self-esteem because some of the symptoms, such as skin and hair problems and weight gain, can be noticeable. Fortunately, there are things you can do to reduce the physical symptoms — and take care of the emotional side of living with PCOS.

Although the medications used to treat PCOS will slow down or stop excessive hair growth for many girls, different types of products are available to help a girl get rid of hair where she doesn't want it. Depilatory creams can gently remove facial hair on the upper lip or chin. Be sure to follow the instructions carefully so you don't develop a rash or allergic reaction.

Tweezing and waxing are other things you can do (at home or at a salon) to manage hair growth. A girl can also visit a dermatologist (a doctor who specializes in skin problems) or qualified hair removal specialist for electrolysis and laser surgery treatments. These procedures offer longer term removal of unwanted hair, but they are more expensive.

If you have severe acne as a symptom of PCOS, it may improve if part of your treatment includes birth control pills or antiandrogens. If it doesn't, your doctor may refer you to a dermatologist for further acne treatment. A
dermatologist may also be able to recommend medications to help reduce skin darkening or discoloration, and to prevent hair growth.

Some girls with PCOS may become depressed, in which case it may help to talk to a therapist or other mental health professional. Talking with other teens and women with PCOS is a great way to share information about treatment and get support. Your doctor may be able to recommend a local support group.

Reviewed by: Larissa Hirsch, MD
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