About polycystic ovary syndrome (PCOS)

Polycystic ovary syndrome (PCOS) is a very common condition that happens in 5 to 10% of young women. It tends to run in families, but it is not caused by one single gene. Women with PCOS may have irregular or no periods, infertility, increased hair growth, acne, and sometimes scalp hair loss. Being overweight is common but it is not caused by the PCOS. The name is a bit of a problem. Some women whose ovaries look as if they have a lot of cysts have normal periods and hormones, and some women whose hormones suggest they have PCOS have normal-looking ovaries. When there are cysts, they are small (less than 1 cm) and don’t cause pain.

What causes polycystic ovary syndrome?
We don’t fully understand what causes PCOS, but it seems to involve several things. The pituitary gland, a small gland at the base of the brain which controls many of our hormones, seems to make the ovaries work too hard. The ovaries then make too many androgens (male-type hormones). These hormones interfere with the woman’s periods, and can give her acne and make her grow more body hair. Some women also lose hair from their scalp (alopecia). The ovaries tend to be bigger than normal, and have small cysts around the outside that are filled with fluid.

Many women with PCOS are overweight, but slim women also get it. Some women with PCOS also have a problem known as insulin resistance. Insulin is a hormone that controls the level of sugar in our blood. Insulin resistance means the body is not very sensitive to insulin. It has to make much more to keep the blood sugar normal. This high level of insulin makes the ovaries make more of the male-type hormones. So women with PCOS may have a higher risk of diabetes and heart disease later in life, especially if they are overweight.

If you have problems with hair growth (hirsutism), irregular periods or infertility, your doctor may suggest some tests. These could include blood tests to look for:
- too many male hormones and pituitary gland hormones
- lipids (cholesterol and other blood fats) and glucose levels.

Your doctor might also suggest you have an ultrasound examination of your ovaries.

What treatments are available?
You can be treated for excessive hair growth and acne, or infertility, but you can’t be treated for both at the same time. So you will need to decide which is most important for you.

Hirsutism and acne
If you are not troubled by much facial and body hair, you may be able to control it with normal cosmetic methods. These include plucking, bleaching, waxing, depilatory creams which dissolve the hair, or shaving. Some people are worried that shaving will make their hair grow more rapidly; this doesn’t happen. All these methods are temporary, but they don’t cost much. Electrolysis and laser therapy are more permanent, but also cost more.

If you have quite bad hair growth, you might need medical treatment. The most common medicines are the anti–androgen drugs spironolactone or cyproterone acetate. These slow down hair growth and make hair
finer. They may take up to six months to work, and the effect gradually wears off if you stop taking them.

Another useful treatment is the contraceptive pill, which helps to control the effect your pituitary gland has on your ovaries. One preparation known as Ginet 84 is especially good, because it also controls the effects of the male-type hormones.

**Infertility**

Treatment can help if PCOS is making you infertile. If you are overweight, losing weight and exercising more will also improve fertility. There are also drugs that can stimulate ovulation (releasing an egg). Clomiphene is the most common one. Women take it for five days, beginning on day two after the start of a period. If you are not having periods, you can start the tablets at any time. It may result in a period about a month later. You will have a blood test to check for ovulation between days 22 and 24.

If clomiphene doesn't work, then you may try gonadotrophin injections. This is a more powerful treatment and you will need to be carefully monitored. Talk to your doctor for more details.

**Insulin resistance**

Metformin, has been used for many years to treat diabetes. We also use it to treat PCOS. It probably works by reducing the amount of insulin in your blood, which means your ovaries make less of the male-type hormones. It might also make your periods more regular and increase the chances clomiphene will lead to ovulation.

If you are overweight, losing weight can also improve insulin resistance, make your periods more regular and improve your hormones.

**Side effects of treatments**

All medicines have side effects. These are some of the side effects of treatment for PCOS.

**Ginet 84**

- Nausea (feeling sick)
- Sore breasts
- Headaches (occasional)
- Increased risk of blood clots (deep vein thromboses) – especially if you are overweight or a smoker. Signs include leg pain or swelling, chest pain, or shortness of breath

**Spironolactone**

- Nausea
- Having to urinate (pee) more – this usually lasts for just a few days
- Irregular periods

**Cyproterone acetate**

- Tiredness
- Depression

**Metformin**

- Nausea (feeling sick)
- Abdominal (tummy) pain
- Diarrhoea (the runs)

These side effects are less if you start on a low dose and build up gradually. People with severe heart, lung, liver or kidney problems should not take metformin. You should not take it on days when you are sick.

*Written by the Department of Endocrinology, Christchurch Hospital. Adapted by HealthInfo clinical advisers. Updated January 2015.*

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