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# Information PCOS

## Medisch Centrum Kinderwens

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### What is PCOS?

PCOS means polycystic ovary syndrome. It involves the growth of multiple small cysts on the ovaries. This information brochure explains some of the symptoms and possible treatments.

The causes of PCOS are unknown. Most likely it's caused by several factors such as hereditary tendencies or environmental factors.

You may have PCOS if you experience at least two out of three of the following symptoms:

- You menstruate less than eight times a year (oligomenorrhea) or not at all (amenorrhea).
- You have elevated testosterone levels or symptoms of elevated testosterone levels, such as acne, hair loss or excessive body hair growth.
- An internal ultrasound reveals more than twelve follicles in either (or both) of the ovaries.

PCOS means that hormones influencing the maturing of ova are unbalanced, which disrupts the maturing of the ova.

This disruption often delays or prevents ovulation, causing an irregular menstrual cycle.

People with a normal, regular menstrual cycle usually experience thirteen or fourteen periods a year; people with PCOS only eight or even less, either due to the time between menstruations being longer than five or six weeks or due to a failure to menstruate for half a year or longer.

### Who may experience PCOS?

PCOS occurs in five or ten percent of all fertile women and is more likely in families with a history of PCOS. PCOS is more common in overweight people.

### Examination

To determine whether you may have PCOS, it is vital for us to gather information regarding the regularity of your menstrual cycle over the past three to six months. In addition to this, blood testing as well as an internal ultrasound will take place.

### Blood tests

When performing blood tests for PCOS, we'll look at the levels of all hormones playing a role in the maturing of ova. Those are FSH, LH, testosterone, estrogen, TSH and prolactine.

## Ultrasound

Using an internal ultrasound, we'll evaluate the uterus and ovaries. If there are over twelve follicles present in either (or both) of your ovaries, PCOS may be a possibility.

## Treatment

### When to treat PCOS?

Treating PCOS may be necessary to achieve a successful pregnancy. This treatment aims to improve the regularity of the menstrual cycle and consequently regularity of ovulation.

The treatment involves losing weight and possibly taking medication.

### Losing weight

PCOS is more common in people with a BMI that's over 29 (you can calculate your BMI by dividing your weight in kg by your height in meters squared). Tools to help calculate your BMI are available online. Losing weight is the primary treatment for PCOS in women with a BMI over 29, as it will usually lead to spontaneous, regular ovulations.

Being overweight is a risk to your health and may cause complications during pregnancy. 80% of people who have PCOS reported that their cycles returned to normal after losing weight.

### Medication using pills (Clomid/Clomiphene citrate)

Following a menstruation, either spontaneous or induced, you'll take 1 pill of Clomid 50mg a day, from the third up to and including the seventh day of your cycle. Clomid heightens the production of FSH, which stimulates the maturing of a follicle. The goal of this is to induce ovulation relatively early in your menstrual cycle, which will give it a regular length. The medication is more likely to work if your BMI is below 29.

#### *How do you know whether ovulation has occurred after using Clomid?*

There are several methods for this:

- Calendar method  
If the menstrual cycle lasts less than 35 days, the chances of having ovulated are high. If no ovulation has taken place, you likely won't menstruate. Ovulation will be roughly ten to fourteen days before menstruation. This means that if the menstrual cycle takes 28 days, ovulation will, in general, take place around day 14. If the cycle takes 32 days, ovulation happens several days later.
- Ovulation tests  
Ovulation tests measure the amount of the hormone LH in your urine. LH is produced 24 to 48 hours before ovulating. Women with PCOS often have elevated LH blood levels, causing ovulation tests to be less accurate than usual (see the information brochure on using ovulation tests for more information).
- Internal ultrasound  
Ultrasounds can be used to monitor follicle growth in the ovary. Ovulation will usually take place when the follicle is 20-24mm in size.

#### *Chances of getting pregnant*

After being treated with Clomid, 70-80% of women experience ovulation and regulation of the menstrual cycle. Over half of these women will be pregnant within the next six to twelve months. Using Clomid heightens the chance of a multiple pregnancy by 8% since it sometimes causes several ova to mature simultaneously.

### *Side effects*

Clomid can cause several side effects such as mood swings (you may feel emotional, have a short temper or be moody more often), hot flashes or night sweating. These all occur in over 10% of users. If you experience severe side effects, please discuss this with your treating nurse or physician.

## **Injections**

If Clomid didn't have the intended effect, a treatment using FSH injections may be a possibility. This treatment involves taking FSH hormone injections for several days. We'll teach you and/or your partner how to do this yourself.

Following a menstruation, either spontaneous or induced, you'll start injecting FSH on the third day of your menstrual cycle, after an ultrasound. Your cycle will be monitored using ultrasounds. The dosage of your medication can be adjusted if these ultrasounds show the need to do so. If one or two follicles have grown to sufficient size, ovulation may happen spontaneously (you can determine this using an ovulation test) or it can be induced using a hCG injection. Ovulation will take place 36 to 40 hours after the injection.

### *Chances of getting pregnant*

90% of women treated with FSH injections will ovulate after the treatment. A pregnancy will develop in roughly half of those.

### *Risks*

This treatment may cause several follicles to start to mature simultaneously. We aim to produce one mature follicle at a time to minimize the chances of a multiple pregnancy. Sometimes, too many follicles will start to grow at once, resulting in a possible early termination of the treatment. If this is the case, we advise abstaining from intercourse to prevent a (high-order) multiple pregnancy.

### *Side effects*

Using FSH may cause side effects such as headaches, fatigue, a skin response at the injection site such as redness or an itch, or developing cysts in the fallopian tubes. These all occur in over 10% of users. In addition to this, 1-10% of users report abdominal pain, nausea and bloating.

We often hear reports of mood swings, although it is unclear whether these are caused by the medication or the understandable tension resulting from the treatment.

## **Miscarriage**

People who get pregnant after being treated for PCOS have a slightly higher chance of the pregnancy resulting in a miscarriage. This is due to the hormonal imbalance associated with PCOS.

## **Consequences for your overall health**

People who suffer from PCOS have a heightened chance of health issues at a later age (mostly during or after menopause). These issues are diabetes mellitus type II, cardiovascular diseases, high blood pressure and, at a younger age, a heightened chance of endometrial cancer. Most of these issues are related to obesity and a lowered insulin sensitivity. Early diagnosis and treatment can lessen the long-term consequences.

### ***Diabetes mellitus (type II)***

Roughly 60% of people with PCOS are overweight. This and a lowered insulin sensitivity are often seen together. To keep glucose levels normal, the body will produce extra insulin. If the glucose levels continue

to be too high, your sugar metabolism will be hindered, eventually resulting in diabetes. The chances of developing diabetes are higher than usual in people who have PCOS, which is why it's important to minimize other risk factors such as obesity.

### **High blood pressure, high cholesterol and cardiovascular diseases**

Obesity, high testosterone levels and diabetes all result in a higher chance of high blood pressure, high cholesterol levels and cardiovascular diseases.

Treating these problems by losing weight, dieting, exercising more and, if necessary, medication will lower the chances of lasting damage. Your physician can help you with this.

If you have PCOS, even if you don't wish to have (any more) children, we advise aiming for a healthy weight (BMI below 25). In addition to this, it's important to menstruate at least every 3-4 months (either spontaneously or after using contraception) to reduce your chances of developing endometrial cancer. We advise having your General Physician check your glucose levels and blood pressure regularly.

## To conclude

PCOS can impact your life greatly. Uncertainty about whether you'll become pregnant, the task to lose weight, the many visits to our Fertility Center during treatment, perhaps the necessity of using hormones and the – often repeated – disappointment of a failed treatment... all of this can be very emotionally taxing. It is important to discuss all this with your partner, close friends, family, and if desired, at work. If you'd appreciate some additional psychological support, fertility counselors are available at the MCK Fertility Center to help you.

## Contact information

Telephone: 071 5812300 (MO-FRI 08:00 a.m.- 12:00 a.m. and 01:00 p.m.-3:30 p.m. SA: 10:00 a.m.- 01:00 p.m. )

E-mail: [info@mckinderwens.nl](mailto:info@mckinderwens.nl)

Website: [www.mckinderwens.nl](http://www.mckinderwens.nl)

## Further information

For lifestyle tips:

<http://www.zwangerwijzer.nl>

<https://www.slimmerzwanger.nl/>

This information is meant for people who have PCOS who have been offered a treatment at the MCK Fertility Center. This information, together with any further information provided to you by our nurses or physicians, is meant to help you make an informed choice regarding the treatment. This information is subject to change.

If you have any feedback regarding this information brochure, please let us know at [info@mckinderwens.nl](mailto:info@mckinderwens.nl).