

Ovulation induction with the help of hormone injections

Gonal-F or Meriofert

If you are planning to have children and have an irregular menstrual cycle, your doctor may suggest medication to induce ovulation. Irregular or no ovulation causes an irregular menstrual cycle. Ovulation induction can be done with tablets or hormone injections.

Hormone injections are chosen if:

- no ovulation has occurred after taking the maximum dose of letrozole or clomiphene citrate;
- there is no proper ovulation after ovulation induction with tablets (letrozole or clomiphene citrate);
- the tablets cause too many side effects;
- if you have not become pregnant after six attempts to induce ovulation using the letrozole or clomiphene citrate tablets.

What happens during a menstrual cycle?

Under the influence of FSH (the follicle-stimulating hormone), one follicle (or egg sac) grows in the ovaries every month. The follicle has several functions:

- A follicle contains an egg. When the follicle is big enough, it bursts and releases the egg. This is called ovulation.
- A follicle produces the female hormone oestrogen. This hormone ensures the growth of the mucous membrane (the inner lining) in the uterus.
- After ovulation, the ruptured follicle produces progesterone. Progesterone is another important female hormone. This hormone ripens the thick lining in the uterus, making it ready for the possible implantation of a fertilised egg (an embryo). If no embryo has implanted, the ruptured follicle will stop making the progesterone hormone after about two weeks, causing the thickened lining in the uterus to shed. You release the lining through the vagina as menstrual blood. After menstruation, the cycle restarts with the growth of a new follicle.

The information in this brochure is general in nature and is intended to give you an idea of the care and guidance you can expect. In your own situation, other advice or procedures may apply. This brochure is therefore only an addition to the specific (verbal) information from your specialist or practitioner.

How hormone injections work

Gonal-F and Meriofert are injections that contain the FSH hormone. FSH causes a follicle to grow in the ovaries, which can cause ovulation. You inject this medication yourself every day during a cycle. The growth of the follicle is monitored with ultrasounds.

Before you start

Every woman with a desire to become pregnant is advised to take 0.4 milligrams of folic acid and 10 micrograms of vitamin D once a day. It is important to achieve and maintain a healthy weight for the treatment. This promotes the effect of the medication, improves the chance of pregnancy and reduces the risk of pregnancy complications.

The treatment

- On the first day of your menstruation or period (cycle day 1), unless this day falls on a weekend, call the Biometrics Department (tel. +31 40 888 95 58) to make an appointment for the first ultrasound around cycle day 10.

If you do not menstruate naturally, bleeding will be induced with progesterone tablets. A pregnancy test should be performed to rule out pregnancy before taking these tablets (Primolut, norethisterone). If the pregnancy test is negative, start taking Primolut 5 mg the same day—one tablet twice a day for five days. Vaginal bleeding will start a few to ten days after taking the last tablets. Start the hormone injections on the third day of the bleeding.

- On the 3rd day of the menstrual cycle, start with the daily injection of 50 units of FSH (Gonal F or Meriofert). You and your partner will receive instructions on preparing and injecting this.
- Inject yourself at a fixed time every morning or evening until you receive the next instructions from the sonographer or doctor during the first ultrasound around day 10 of the cycle. This means that you should inject the FSH (Gonal F or Meriofert) from day 3 to day 10 of your cycle, in any case.
- During the internal ultrasound, the follicles can be seen and the diameter measured. The egg itself is in the follicle and is very small; it cannot be seen during the ultrasound. We consider the follicles mature when they have a diameter of about 18 mm.
- If no follicle grows after two weeks, the hormone dosage can be increased. Your doctor or sonographer will discuss this with you during or after the ultrasound check-up.

- When a follicle is mature, you will be advised to stop the FSH injections (Gonal F or Meriofert) and start injecting a second hormone, hCG (Ovitrelle). The effect of hCG is identical to the LH hormone; it induces ovulation in the natural cycle. The hCG hormone causes ovulation. You will be advised to have sexual intercourse on the day of the hCG injection and two days later.
- Due to the risk of a multiple pregnancy, the stimulation will be stopped if more than one follicle grows in the ovaries. You will be advised to have protected or no intercourse for a while. You can restart the hormone injections with a lower dose during your next menstruation. The fertility doctor or sonographer will discuss the new dose with you.

The next steps

After ovulation induced by hCG injection, you have to wait about two weeks to see if you begin menstruating or are pregnant. These can be stressful weeks. The chance of pregnancy depends on several factors. The average chance of pregnancy per cycle of ovulation induction is about 15%. Most women need several cycles of ovulation induction to conceive.

About fourteen days after ovulation, you can take a pregnancy test at home if your period has not started. If you are pregnant, please contact the Biometrics Department to make a first pregnancy ultrasound appointment.

Please also contact the Biometrics Department if menstruation occurs. A new prescription for the hormone injections will be sent to de Run or de Karpen pharmacy. The hormone dose may be adjusted depending on the growth of the follicles in the previous month.

Risks and side effects

Chance of a multiple pregnancy

There is a slightly increased chance (10%) of a multiple pregnancy when using the hormone injections. This is because sometimes, several eggs are released. This is also why you start with a low dose and increase if necessary.

Side effects of hormone injections

Side effects can sometimes occur as a result of the medicines used. The most common symptoms are general fatigue, stomach pain, breast tension, fluid retention (and in turn, weight gain) and mood swings. You may take paracetamol if necessary. These symptoms will go away on their own, so there is no reason to worry. If the symptoms are severe, you can contact your doctor.

More information about the medication

You will find more information about the Gonal-F injections and ovitrelle injection on the www.merckfertiliteit.nl website. There is a 14-digit number after the abbreviation PC on the packaging of the medicine. Enter the last six digits of the number after PC to access the product information on the website.

You will find more information about the **Ovitrelle and Gonal-F** injections on the www.merckfertiliteit.nl website.

Questions

If you have any questions after reading this leaflet, call the Biometrics Department, telephone number +31 40 888 9558.