# Intrauterine Insemination (IUI)

**Your attending physician has explained that you are eligible for Intrauterine Insemination (IUI). In addition to the information provided by your doctor, you also received this leaflet about IUI. Please read this leaflet carefully so that you and your partner understand the treatment and are not faced with unexpected situations.**

## What happens during a menstrual cycle?

One follicle grows in the ovaries every month. This is also called an egg sac. 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. It ripens the thick lining in the uterus, preparing it for the possible implantation of a fertilised egg (an embryo). If no embryo has implanted, the ruptured follicle will stop producing progesterone after about two weeks, causing the thickened lining in the uterus to shed. The lining is released through the vagina as menstrual blood. After menstruation, the cycle restarts with the growth of a new follicle.

## What is Intrauterine Insemination (IUI)?

With IUI, after processing, the sperm cells are introduced directly into the uterine cavity with a thin tube through the cervix. Spontaneous fertilisation can occur when the sperm cells travel through the fallopian tube towards the abdominal cavity and come into contact with the egg cell(s). This treatment is combined with mild ovarian stimulation (mild ovarian hyperstimulation, MOH). Hormone injections (FSH) are used which causes several follicles to mature each month instead of one. We aim for two or a maximum of three follicles.

## When is this form of treatment used?

This treatment is used when reduced fertility is caused by:

- reduced sperm quality;
- endometriosis;
- if no clear cause has been found for the prolonged absence of pregnancy.

*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.*

## Folic acid and vitamin D

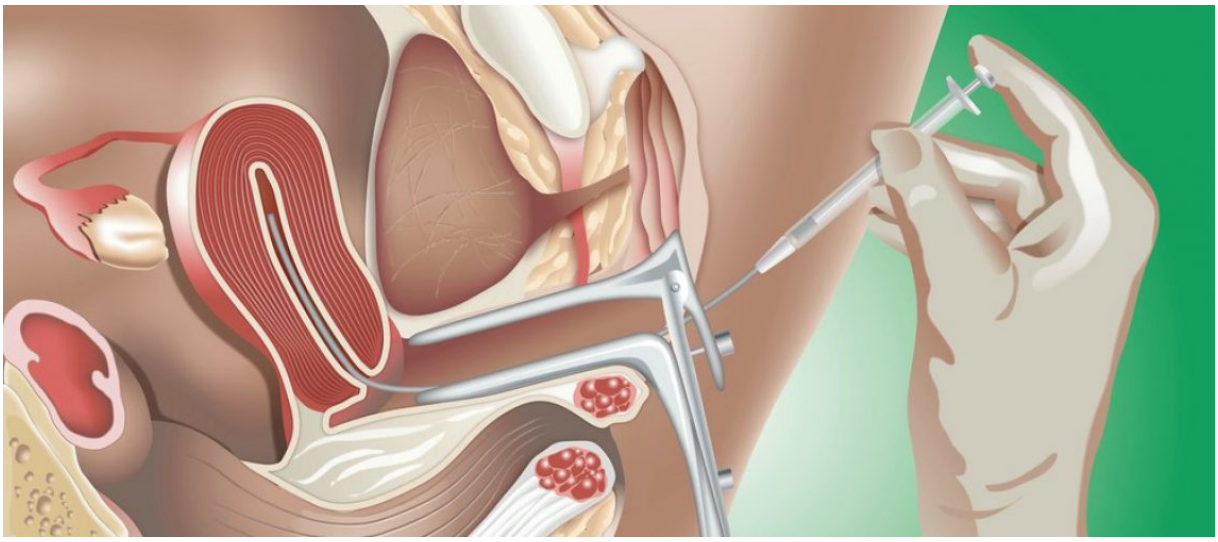
Before starting the treatment, you should take 0.4 milligrams of folic acid once a day to reduce the risk of birth defects. You should also take 10 micrograms of vitamin D daily.

## The IUI-MOH treatment

- On the first day of your menstruation (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.
- On day 3 of the cycle (3rd day of menstruation), start with the daily injection of 75 units of FSH (Gonal F, Meriofert). FSH (Follicle Stimulating Hormone) ensures that several follicles mature in the ovaries. It is administered under the skin with an injection pen. You will receive instructions on how to inject this.
- Inject yourself every day (morning or evening) at a fixed time until you receive the next instruction from the sonographer or doctor during the first ultrasound around day 10 of the cycle. This means that you inject the FSH (Gonal F or Meriofert) from day 3 to day 10 of your cycle. The follicles can be viewed and the diameter measured during the internal ultrasound. 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.
- Once the follicles are 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 ensures that ovulation occurs and that the egg is released from the ovary around the time of insemination.

## The insemination

- On the day of insemination, the semen is produced and collected in a sterile jar. To ensure optimal semen quality, refrain from ejaculating for **two** days. Longer abstinence can have adverse effects on the results. If the semen is collected at home, you must keep the jar at room temperature and bring it to the lab within an hour of production. You will receive the leaflet *"Sperm Selection Test (SPES) and Intrauterine Insemination"* from us when the insemination is planned.
- The sperm is processed in the laboratory; the most vital sperm cells are concentrated in a small volume. Semen processing takes about an hour.
- After you have collected the processed semen from the laboratory, walk to route 14 biometrics at Máxima MC in Veldhoven. Take a seat in the waiting room. The sonographer or doctor will call you in. Keep the envelope with the plastic tube against your body to keep the semen at the right temperature.
- The processed semen is drawn into a syringe, to which a small flexible tube (catheter) is attached. The woman is asked to sit in the gynaecological chair. The cervix is opened using a speculum (spreader). The tube is carefully inserted through the cervical canal into the uterine cavity. This does not usually hurt. The processed semen is slowly injected into the womb. After insemination, you can resume your daily activities (you do not need to do or not do anything extra).



## Chance of pregnancy

The chance of pregnancy per IUI treatment is about 10%. Many factors influence the chance of pregnancy. Age plays a major role in this.

## The period after IUI

After the IUI, a stressful waiting period begins. Will fertilisation and implantation succeed or fail? As far as we know, there is nothing you can do to influence this. We advise you to resume your daily activities (you may also have sex).

### Pregnancy test

If no menstruation occurs, you may take a pregnancy test approximately two weeks after insemination. You can call the Biometrics Department to schedule a first pregnancy ultrasound if you are pregnant.
If menstruation occurs, you may start the next IUI treatment if desired. You can contact the Biometrics Department for a new medication prescription and to schedule the first ultrasound around cycle day 10.

### The evaluation

We usually recommend 6 IUI treatments in total. If you are not pregnant after 3 IUI treatments, you can ask the assistant to make an appointment with your treating doctor for an evaluation appointment.

## Risks, complications and side effects

Because the aim is to release several eggs during an IUI-MOH treatment (preferably two, maximum three), the chance of a multiple pregnancy increases.
If more than three follicles develop, the stimulation will be stopped. Insemination will not proceed, and the doctor will advise you to have protected or no intercourse for a while.

**Ovarian Hyperstimulation Syndrome (OHSS)**
Sometimes, many (often small) egg follicles are formed during stimulation. This may be because the dose is too high for you, or your ovaries are very sensitive to the stimulation. Your ovaries may become swollen, and your abdomen may become distended tender. Abdominal fluid may also develop. This is referred to as ovarian hyperstimulation syndrome (OHSS). This is often accompanied by lower abdomen pain, nausea, vomiting and weight gain. Contact your doctor if you experience any of these symptoms. In rare cases, ovarian hyperstimulation syndrome can lead to the formation of blood clots, known as thrombosis. The dose of the FSH hormone for IUI treatment is so low that hyperstimulation syndrome is extremely rare.

**Additional complications**
As with a spontaneous pregnancy, an ectopic pregnancy can also occur after an IUI treatment. This is especially true for women who have previously had problems with their fallopian tubes.
Unfortunately, miscarriages also occur after IUI treatments. About 15% of resulting pregnancies end in a spontaneous miscarriage. Research has shown that the risk of a miscarriage strongly depends on the woman's age: the older the woman, the greater the risk of miscarriage. This is usually the result of a genetic error in the resulting embryo.
The insertion of the IUI catheter into the cervix and uterine cavity may cause minor bleeding and cramps. This blood loss is not a problem, so you don't have to worry. The cramps usually subside shortly after insemination.

**Side effects of hormonal stimulation**
Side effects can sometimes occur as a result of the medicine used. The most common symptoms are general fatigue, abdominal 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 Ovitrelle and Gonal-F injections 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 can find more information about Meriofert injections on the https://www.goodlifepharma.com/producten/meriofert website.