



## **INSEMINATION – IUI**

**WHO CAN RECEIVE TREATMENT?**

In cases of unexplained infertility, irregular menstrual cycles, anovulation or lowered sperm quality, chances of pregnancy can be enhanced by inserting sperm directly into a woman's womb. This technique is called **Intra Uterine Insemination (IUI)**.

**Maigaard Fertility Clinic** offers fertility treatment with IUI to anyone who requires this treatment. However, according to Danish legislation, we are not allowed to treat women older than 45 years old and due to a significant decrease in pregnancy chances in IUI treatments in woman older than 39 years old, we will in that case advise you to go directly to IVF.

You do not need to be referred to us by your Doctor nor to have any prior tests before commencing. However, if you have been through treatment at another fertility clinic or have had tests done already, we would like to receive a copy of your file incl. the test results.

During the preliminary interview, we will go through your case and assess if there is a need for further examinations before starting the treatment.

The interview is offered at our clinic free of charge. If you live abroad, we can correspond over email or set up a telephone interview. In addition, if you live abroad, your local gynecologist can conduct the initial part of the treatment, so you do not have to travel before the actual insemination.

Before starting the treatment, we recommend the woman to be checked for **Chlamydia** (microorganism) from the cervix. If the test is positive, both the woman and her partner need to undergo treatment with antibiotics.

If the woman is uncertain whether she has had **Rubella** (German measles) or not, a blood sample can clarify if she has developed antibodies against it. If not, she will need to be vaccinated and the treatment cannot start before 3 months later.

The tests for Chlamydia and Rubella are normally conducted at your GP/local gynecologist.

We also expect that you have had your **cervical smears** taken regularly.

Furthermore, we recommend, that the woman's metabolism is checked (**TSH and TPO antibodies**) together with hormone levels: **FSH and LH (to be taken on cycle day 2-4)** and **AMH** (Anti Müllerian Hormone).

Both the woman and the man must be tested for **HIV, Hepatitis B and Hepatitis C**. We will take the blood tests at our clinic (if you live abroad, we need to receive a copy of valid tests before the treatment commences).

**HOW DO WE GET STARTED?**

Please call the clinic in order to book an appointment for a preliminary interview (free of charge) or send us a letter/email with your information (incl. previous examinations and treatments). Together we will discuss the most suitable treatment for you.

**IUI-TREATMENT**

In order for the insemination to lead to pregnancy, it is necessary that at least one of the two Fallopian tubes are open for passage. An examination may have been performed to detect blockages in your fallopian tubes by a:

1. Hysterosalpingogram (HSG), an X-ray of your womb and fallopian tubes after a special dye has been injected or
2. Laparoscopy (keyhole surgery) where a thin tube with a camera can be inserted into your abdomen to examine your womb, fallopian tubes and ovaries also using injected dye to test for passage in the tubes.

If none of the above have been performed, we can make a hystero-salpingo-ultrasonography (HSU) to check for any blockages or abnormalities. It is a special type of ultrasound scan, where a small amount of fluid is injected into your womb through a tube placed through the cervix.

It is not strictly necessary for the IUI treatment to have any of these examinations performed, but if there is a history of pelvic infection, it is advisable to have the tubes evaluated before starting IUI. If the tubes are obstructed or damaged on one or both sides, surgery or IVF treatment may be necessary.

In the case of irregular menstrual cycles or anovulation, we can use a mild hormone treatment. The hormone treatment stimulates the ovaries to mature 1-2 follicles compared to the maturation of 1 follicle in a natural cycle. This increases pregnancy chances per cycle, but also increases the risk of a multiple pregnancy. The efficiency of the treatment depends on our ability to control the ovulation in order to perform the insemination at the right time

In cases of very poor sperm quality or total lack of sperm cells or in the absence of a male partner, you can choose IUI with donor sperm. Before using donor sperm, we will guide you concerning the selection of the donor and you will need to sign a consent form.

In cases of very poor sperm quality, you can alternatively choose to go for IVF treatment with micro-insemination also called **Intra Cytoplasmic Sperm Injection (ICSI)**, which is a procedure where one sperm cell is injected directly into one egg by use of special equipment.

This technique only requires very few sperm cells. If you are interested in knowing more about this, please ask for our information about "In Vitro Fertilisation IVF/Microinsemination ICSI".

#### **THE TREATMENT STEP BY STEP**

(See treatment schedule further on)

When the cycle starts, please call the clinic in order to make an appointment for an ultrasound scan on cycle day 10-11 (if you live abroad, please contact your local gynecologist for an appointment after you have spoken to us).

If a mild hormonal stimulation is planned, the treatment starts with 1-2 tablets of Clomid 50 mg from cycle day 3-7 as agreed upon. This causes the pituitary gland to release hormones needed to stimulate ovarian follicular growth, leading to the maturation of 1-2 follicles. We can add on extra hormonal injections from cycle day 8-10 (FSH; e.g. Puregon, Gonal-f, Menopur or Bemfola) that stimulates ovarian follicular growth together with the endometrium in the uterus. It is administered by self-injection under the skin on your stomach. A scan has to be made on cycle day 10/11.

Here we will monitor the endometrium in the uterus and assess the leading follicle (size and location). The size of the leading follicle determines when to take the ovulation injection (Ovitrelle). There might be need of a second consultation before we can finalize the treatment plan. Once the ovulation injection is set at a given time (planned by us), the insemination will follow 36-38 hours later at our clinic.

The ovulation injection is administered by self-injection under the skin on your stomach.

If there are 3 or more mature follicles developing in a cycle, the treatment must be cancelled, as the risk of a multiple pregnancy is too high.

We will then have to make a new treatment with a milder/no stimulation depending on your case.

**SIDE EFFECTS**

The hormonal stimulation can give passing heat flushes, cramping/discomfort in lower abdomen, breast tenderness, bloating, cramping/discomfort in lower abdomen and back, fatigue and/or nausea, eventually also mood swings.

There is an increased risk for a multiple pregnancy when using hormones.

**THE SEMEN SAMPLE**

On the day of insemination, the man provides a sperm sample 2 hours prior to the insemination. The sample can be made at home, if the time from the sample is made to it is handed over at the clinic does not exceed 75 min and it is kept warm under the transportation; otherwise it can be made at the clinic in a private room. We recommend 2 days of abstinence before the sample has to be provided.

If donor sperm is used, the laboratory will prepare the sample before the appointment.

**SPERM DONOR**

When a sperm donor is required in the fertility treatment, the donor can be either anonymous or open. We can offer both anonymous and open sperm donors from our stock (all our vials are delivered from a certified sperm bank in Denmark, European Sperm Bank), matching the basic profile (height, weight, eye- and hair colour) from Scandinavian donors. If you have specific wishes or want a donor with an extended profile, you have to choose, buy and transfer the required sperm from the sperm bank (Cryos or European Sperm Bank) to our clinic prior to the treatment. Before using donor sperm, we will guide you concerning the selection of the donor and you will need to sign a consent form.

According to Danish Legislation regarding fertility treatment (Law nr. 602, 18 June 2012) and The Danish National Board of Health, we are obliged to inform you of the following prior to treatment:

*"By the selection of donors it has been attempted to limit the risk of transmission of hereditary diseases, congenital deformities, etc. by using only donors who have declared that they have no knowledge of such hereditary risks in their family, and where inquiries and examination have been carried out by an experienced health staff member in order to ascertain this information. In spite of these precautionary measures all hereditary risk cannot be excluded. Should the child, against all expectations, have health problems at the time of birth or during its first years of life, which according to the information you will have received may be hereditary, it is important that you report back to the clinic or to the health staff member who has treated you, in order to assess whether this donor can still be used. The same procedure shall apply if you are informed that there has been an infection from donor semen or donor eggs. Even if the donor has been declared free of transmittable diseases such as HIV and hepatitis the risk will never be zero."*

**THE INSEMINATION**

Prior to the insemination, the man will be asked to provide a sperm sample, which will be prepared in the laboratory. Here it will be "washed" and filtered to produce a concentrated sample of healthy sperm by separating the sperm cells from the sperm fluid.

If donor sperm is used, the laboratory will prepare the sample before the appointment.

An instrument called a speculum is inserted into the woman's vagina to keep it open. A thin, flexible tube called a catheter is then placed inside the vagina, passed through the cervix into the womb, where the sperm cells are injected into the uterine cavity.

This process is mostly painless, although some women experience mild cramping for a short while. The process usually takes no more than a few minutes and you should be able to go home shortly after the treatment is completed.

The pregnancy test is scheduled 14 days after the insemination.

The clinic will give you a home pregnancy test on the day of the treatment to be used on the given day. It is important that you carry out the test in all cases, also if a vaginal bleeding has occurred before. A bleeding does not necessarily rule out a pregnancy.

We ask you to call us on the day you perform the test, regardless of the result.

If the test is positive, we will offer a pregnancy ultrasound scan 3 weeks later (if you live abroad, you should book an appointment at your local gynecologist).

If the test is negative, we can plan for a new treatment.

**TREATMENT SCHEDULE**

## Cycle day

1	Start of menstruation
2	
3	Tabl. Clomid (Clomifen) (50mg x 1-2 daily)
4	Tabl. Clomid (Clomifen) (50mg x 1-2 daily)
5	Tabl. Clomid (Clomifen) (50mg x 1-2 daily)
6	Tabl. Clomid (Clomifen) (50mg x 1-2 daily)
7	Tabl. Clomid (Clomifen) (50mg x 1-2 daily)
8	Injection Bemfola / Gonal-f / Puregon / Menopur
9	Injection Bemfola / Gonal-f / Puregon / Menopur
10	Injection Bemfola / Gonal-f / Puregon / Menopur
10/11	Ultra sound scan and plan for ovulating inj. Ovitrelle
12/13	Semen sample to be provided, insemination upon agreement
27/28	Pregnancy test

If the follicle at the first consultation has not reached maturation yet, a new scan will be made a few days later and the treatment will be postponed accordingly.

### **CHANCE OF GETTING PREGNANT**

The chance of becoming pregnant following insemination with the partner's semen is 15 – 18 % per trial (depending of the age of the woman).

When donor sperm is used, the chance of pregnancy is 20-25 % per trial (depending on the age of the woman).

The higher pregnancy rates seen after use of donor sperm is explained by there being a direct reason for the woman's/couples infertility, whereas in couples using the partner's semen, there is a higher rate of unexplained infertility.

### **GUIDANCE REGARDING MATERNITY AND PATERNITY FOR PATIENTS UNDERGOING ARTIFICIAL FERTILIZATION.**

#### Regarding maternity:

The woman, who gives birth to the child, is considered the child's mother.

#### Regarding paternity:

Undergoing artificial fertilization using sperm cells from the woman's husband or partner, the legal obligations for paternity equals those from natural fertilizations:

If the couple is married, the husband is considered the father.

If the couple is not married, the couple consents to equal legal obligations towards a child born from the treatment before it commences.

#### Regarding use of sperm donor:

When a sperm donor is used in a treatment of a married woman, the husband will be considered the father, and a consent form is signed prior to the treatment; see "*Law Concerning Rights of Children*"

When a sperm donor is used in a treatment of an unmarried woman, a potential partner to the woman has to consent to the parental obligations prior to the treatment.

#### Regarding legal effects of Parenthood:

The parents of the child are obliged to provide for the child until the age of 18 years. The child has the right to carry the name of the parents and have right of inheritance from the parents.

#### Regarding anonymity

If the egg or sperm donor is anonymous, the identity of the donor cannot be given to the receiving couple or to the child, and likewise the donor cannot be given information regarding the identity of the receiving couple or the child.

### **MEDICINE USED IN IUI-TREATMENT**

#### Clomid (Clomifen)

Hormone that causes the pituitary gland to release hormones needed to stimulate ovarian follicular growth.  
To be taken orally (tablets).

*Side effects:*

*Headaches, nausea, fatigue and/or mood swings.*

#### Gonal-f, Puregon, Menopur, Bemfola

Contains a hormone (FSH) similar to the one from the pituitary gland that stimulates ovarian follicular growth.  
It is administered by self-injection under the skin on your stomach (or thigh).

*Side effects:*

*Breast tenderness, bloating, frequent urination, cramping/discomfort in lower abdomen and back, constipation, fatigue and/or nausea, eventually also mood swings. Local irritation at injection site.*

#### Ovitrelle

Ovulating hormone that is given when the egg follicle has reached a proper size to plan for the insemination.  
It is administered by self-injection under the skin on your stomach.

*Side effects:*

*Local irritation at injection site, cramping/discomfort in lower abdomen.*