
Information about non-medically indicated cryopreservation of oocytes

Medisch Centrum Kinderwens

Information about non-medically indicated cryopreservation of oocytes

You have scheduled an appointment with the MCK Fertility Center because you would like to have several of your oocytes ('egg cells') preserved by freezing them. In this information brochure, we'll provide some information on the procedure.

The cryopreservation of oocytes requires a hormone treatment, similar to a full IVF or ICSI treatment. More detailed information regarding these treatments can be found in the 'Practical info IVF and ICSI' information brochure.

The treatment

Any IVF or ICSI treatment is made up of four phases: the stimulation phase, the oocyte retrieval, the laboratorial phase and the embryo transfer. When freezing the oocytes instead of inseminating them, only phases 1 and 2 will be done. After thawing the oocytes, the treatment will have to be an ICSI treatment since IVF is then no longer possible.

During the stimulation phase, you'll be using hormones causing multiple follicles to mature in both ovaries. A follicle is a small fluid-filled sac with an oocyte lodged in its wall. During an oocyte retrieval, the fluids are sucked out of the follicles to obtain the oocytes. After the retrieval, the obtained oocytes are collected and judged in our laboratory. The mature oocytes can be frozen and stored for later use. We do often also obtain oocytes that are not yet mature. These can unfortunately not be stored.

Indication and age limits

The chances of a pregnancy when using cryopreserved oocytes depend on several factors. The most important two are the age of the woman when the oocytes were frozen, and the number of oocytes that were frozen. Therefore, the upper age limit for non-medically indicated cryopreservation of oocytes has been set at 40 years.

Intake

During the intake consult, your treating nurse or physician will discuss with you whether cryopreservation of oocytes is an option for you. They will also talk you through the odds of conceiving after thawing and the risks of the treatment. Possible alternative options will be explored with you. Your treating nurse or physician will also ask about your (medical) history in order to determine whether a treatment is possible and responsible and whether any special circumstances apply. In addition to this, we may refer you to one of our fertility counselors if we feel it necessary. You can, naturally, request psychosocial support if so desired. After the intake, you'll receive further information regarding the treatment as well as a treatment agreement. You'll have time to read through these prior to your next appointment.

Examination

Prior to a potential treatment, we'll perform an ultrasound and do blood testing.

In order to estimate whether it will be possible for you to obtain a high enough number of oocytes, we'll perform a vaginal ultrasound early in your menstrual cycle (day two or three). This allows us to get an impression of your ovarian reserves and is also known as an antral follicle count (AFC). In addition to this, we use it to determine whether your uterus and ovaries have any obvious abnormalities. You can schedule an appointment for this ultrasound through our administrative office (after your intake). We'll take some blood to determine your blood levels of a hormone known as AMH, which also helps us determine your ovarian reserves. In addition to this, we'll test your blood for antibodies to HIV and hepatitis B and C. We can take some blood either immediately following your intake or when performing the ultrasound.

Follow-up consultation

During the follow-up consultation, we'll discuss the results of your ultrasound and blood tests with you. If the results are positive and you've decided to proceed with the treatment, this consult is an opportunity for your treating nurse or physician to talk you through the next steps. You'll discuss when to start the treatment, which medications you'll be taking and the dosages. One of our nurses will explain how to inject the medication, which you can either do yourself or have someone else do for you. At this point, we'll ask you to sign your treatment agreement and storage agreement and hand those in at our administrative office.

Prior to the treatment

In order to increase oocyte quality, we advise starting folic acid (0.4 or 0.5mg a day) as well as vitamin D (10 micrograms a day) or a multivitamin geared towards pregnant women four weeks prior to the start of the treatment. We strongly advise you to quit smoking and not use alcohol during this time as well. For further information please refer to www.zwangerwijzer.nl.

Stimulation phase

During the stimulation phase you'll use FSH, which stimulates follicle growth. In addition to this, you'll use something to prevent ovulation. Your treating nurse or physician will discuss which schedule is best suited to your unique situation with you. You'll receive this schedule to ensure that you'll always know the particulars.

On the first or second day of your menstruation cycle, you'll have to contact our administrative office to schedule a starting ultrasound to take place on the first or second day of your menstruation cycle. After the starting ultrasound, we'll provide a prescription for the necessary medication. On the same day, you can collect the medication at the Alrijne Hospital's apothecary, in Leiderdorp. You'll start taking FSH on the day you previously agreed on with your treating nurse or physician. After you've been injecting your hormones for several days, you'll return to our facility for a check-up ultrasound. Usually, this'll take place around 8 days after starting FSH. During this ultrasound we examine the size and number of follicles. Usually, we'll need to perform several check-ups. Once the follicles are large enough, we'll initiate the final maturing stage of the follicles using two injections of Decapeptyl®.

The exact date and time of this injection and the retrieval itself will be provided by the administrative employee who plans the retrieval date and time.

During the stimulation phase, you'll be able to continue doing everything the way you're used to. You may not have as much energy as you're used to, and some people experience mood swings, headaches, abdominal pain or nausea. If this is the case, we advise against activities such as running or horseback

riding. If you're experiencing extreme discomfort, please contact one of our nurses. The phone number and hours can be found at the end of this information brochure.

The retrieval

The oocyte retrieval, which is the second phase of the treatment, will take place 35 hours after the Decapeptyl® injection. You are allowed to have a light breakfast on the day of the retrieval, though we advise you not to drink a lot (no more than, for example, one cup of tea). Roughly two hours prior to the retrieval, you should take 2 paracetamol pills and perhaps Naproxen 500mg.

We strongly advise you to bring someone to the clinic with you. Roughly 15 minutes before your appointment is scheduled to start, please report to the front desk. You can sit down in our waiting room until one of our nurses comes to collect you.

More detailed information regarding the oocyte retrieval can be found in our 'practical info IVF and ICSI' information brochure. You'll hear how many oocytes were collected roughly half an hour after the retrieval. The pain medication we use during the retrieval can lead to slower reaction times and decreased ability to focus. Many regular activities such as driving a car will be impacted by this until at least 24 hours have passed after the oocyte retrieval.

After the retrieval

Most of our clients stay home on the day of the retrieval. We advise taking it slow for the rest of the day. You may experience some discomfort during the days following the oocyte retrieval, too. If necessary, you can take 1000mg paracetamol every 6 hours, and rest. This should be sufficient to help the pain decrease. Usually, you'll start menstruating within a week after the oocyte retrieval. This menstruation may be heavier or more painful than you're used to.

The laboratorial phase

Several hours after the oocytes are received in the laboratory they're processed, and their level of maturity is judged. The mature oocytes are frozen on that same day. Several of our employees will each perform multiple checks (both physical and electronic) to ensure that no oocytes are switched or mislabeled. The next day, you'll be informed through email of the number of viable oocytes that were entered into cryopreservation storage.

Side effects and risks associated with an IVF or ICSI treatment

The main side effects of using FSH are headaches (occurs 1-2 in 10 cases), abdominal pain, nausea and diarrhea (occurs 1-10 in 100 cases).

Possible localized side effects are pain, redness, swelling and itchiness at the injection site (occurs 1-2 in 10 cases). Other than that, clients regularly mention mood swings, although it's hard to determine whether these are caused by medication or the stress of the treatment.

The most important risk of every IVF or ICSI treatment is hyperstimulation syndrome (OHSS). By using personalized treatment schedules, we ensure a near-zero occurrence rate of this complication when freezing oocytes. A complication that does occasionally occur is torsion of the ovary.

The stimulation causes the ovaries to increase in size. In the time following the oocyte retrieval, they stay enlarged. This may cause a torsion of one of the ovaries, causing sudden intense abdominal pain paired with nausea and excessive sweating. If this doesn't dissipate within half an hour, we implore you to contact either us or a nearby hospital's emergency room.

Finally, a risk is an infection after an oocyte retrieval. If you're suffering from abdominal pain and a high fever (>38.5°C), please contact us.

Cost

The costs of the intake consultation and the examinations are regular care and are covered by basic insurance. The IVF treatment and cryopreservation of the oocytes are not, so these will be charged to you. A current price list can be found on our website, www.mckinderwens.nl. Your treatment will include a 'follikelpunctie ten behoeve van invriezen eicellen' ('follicle puncture with the aim of obtaining oocytes for cryopreservation'), stimulation hormones (roughly € 1.000 - € 1.200 for each treatment) and 'opslag (eigen) eicellen' ('storage of (own) oocytes').

Using frozen oocytes

Oocytes obtained prior to the 43rd birthday may be used to conceive until your fiftieth birthday. After thawing the oocytes, phases 3 (the ICSI procedure in the laboratory) and 4 (the embryo transfer) will take place. If you have a medical indication for IVF or ICSI at this time, the treatment will be reimbursed up to three times if you're younger than 43. After your 43rd birthday, treatment costs will be charged to you. In order to guarantee maximum quality, only up to 8 oocytes will be thawed at a time. If several viable embryos are produced after a single thawing, the remainder of the embryos can be frozen and kept for an embryo transfer at a later point in time.

We ask you to schedule a consultation when you're considering the use of your oocytes to conceive. Your treating nurse or physician will discuss which path would be best for you to follow at that point in time.

In some cases, the circumstances surrounding the freezing of your oocytes can differ heavily from the circumstances when you want to use them to conceive. In some **highly exceptional** cases, these circumstances may lead us to reject your request for treatment, for example a severe medical condition developed after freezing your oocytes or if there is a danger to the (unborn) child such as the use of hard drugs.

Odds of conceiving using frozen oocytes

The Netherlands is unable to offer extensive experience or data on frozen and re-thawed oocytes. Papers published in other countries, such as the United States or Japan, indicate that at least 80% of frozen oocytes is viable after thawing and that the chances of fertilization and pregnancy are at most a *little* bit lower than in an IVF/ICSI situation without frozen oocytes. Research has shown that the chances of pregnancy correlate with the age of the biological mother when the oocytes were frozen, as well as the number of oocytes that were frozen. Expectations are that a long period of being in cryopreservation at a temperature of -170 – -196°C does not have any negative consequences. These expectations are based on the fact that human embryos as well as sperm cells can be kept in cryopreservation storage for many years without negative effects on the cell matter.

Follow Up

It has been decreed by the gynecologists' and embryologists' unions that we need more information on the wellbeing of children developed from vitrified oocytes. Therefore, we would like to enter into an agreement with you saying that you'll agree to such a follow-up. This is a part of the treatment agreement mentioned earlier.

Phone numbers for severe physical complaints

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.)

After hours: 06 – 25 25 74 200

Further information

<http://www.zwangerwijzer.nl>

(lifestyle tips)

<https://www.youtube.com/watch?v=vGbIL9QWSsM>

(Youtube ICSI)

http://www.nvog.nl/Sites/Files/0000000093_ICSI,%20intracytoplasmatische%20sperma-injectie%5b1%5d.pdf

(information about ICSI)

http://www.nvog.nl/Sites/Files/0000000096_IVF.pdf

(information about IVF)

This information is meant for women who are considering freezing oocytes at the MCK Fertility Center. This information, together with any information provided to you by a nurse or physician, is meant to help you make an informed choice on whether you want to undergo the treatment or not. This information is subject to change.

For any feedback regarding this information brochure, please contact us at info@mckinderwens.nl.