



Using Frozen Eggs for Fertility Treatment

Egg Thawing & Intracytoplasmic Sperm Injection (ICSI)

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Using frozen eggs for treatment

There are many situations where frozen eggs are used in fertility treatment,

- Eggs frozen by you, or your partner, in the past
- Eggs frozen unexpectedly where sperm was not available on the day of egg collection to fertilise them
- Egg Donation

What ever category you fit into, the process to use the eggs is the same, and can be broken into two parts, embryo creation and embryo transfer.

Embryo creation using Intra Cytoplasmic Sperm Injection

- To create embryos, the eggs must first be thawed and fertilised with sperm.
- The freezing and thawing process means that the eggs must be fertilised by ICSI, where a single sperm is selected by an embryologist and injected into the egg.
- It is important to be aware that although survival and fertilisation rates are very good, not all thawed eggs will survive, and not all injected eggs will fertilise.
- Once fertilised, the eggs are now embryos and are allowed to develop for up to 6 days in the laboratory.

Embryo Transfer

- To have the best chance of success it is important that the lining of the uterus is ready before an embryo is transferred.
- Each month there is a time during the menstrual cycle where the lining of the uterus is most receptive to an embryo. Your doctor will prepare a plan for you to ensure both your lining and embryo are ready at the same time.
- The uterine lining is measured by ultrasound scan, and medication can be used to help with aligning your cycle with embryo creation.

Before Treatment

Contact us (01 556 7901) in the early part of the cycle immediately prior to the cycle in which the embryo recipient plans to have the embryo transfer.

Before we can plan treatment using frozen eggs, a number of tests need to be completed. Some of these relate to your health and look to safeguard the health of the pregnancy and baby, others are legal requirements.

Initiating Treatment

- When you are ready to become pregnant you can contact the clinic to begin the process. This will require a doctor consultation and further investigations to determine the best treatment approach for you.
- The creation of embryos from the frozen eggs requires sperm. Depending on your circumstances this may be using partner sperm or donor sperm.

Tests Required

- TSH (Thyroid Function Test)
- Chlamydia (depending on how long since previous treatment at MFC)
- Body Mass Index (BMI)
- Blood Pressure

These tests are only applicable for the partner who will carry the pregnancy. These are the standard tests required. Based on your circumstances, your doctor may request further investigations. Our patient services and nursing teams will contact you to schedule these tests.

Infection Screening

- Before embryos can be created, infection screening must be carried out. This includes HIV and Hepatitis. This is done at Merrion Fertility Clinic.
- Further testing will not be required for the egg provider.
- The person carrying the pregnancy will need screening unless they also provided the eggs.
- The person providing the sperm will need to be screened.
- Our nursing team will contact you to schedule testing.
- You will also be asked to complete an Infection Risk Declaration Form. This will be sent to you via email. This must be completed by each partner (if applicable).

Overview of Process

Preparation for Treatment

Doctor Consultation

Further Investigations for
Pregnancy Carrier & Partner
(if applicable)

Sperm Collection
(Partner or Donor)



Preparation For Embryo Transfer

Uterine Monitoring Scans

Commence Treatment
Medication (if applicable)

Arrange embryo transfer
date with nursing staff



Fertilization Process and Embryo Development

This step is completed by the embryology team.

Frozen Eggs are thawed

ICSI using sperm

Monitoring of Embryo
Development



Embryo Transfer

Attend Scheduled Embryo Transfer at the
Clinic

Follow the Clinic's Guidelines for Embryo
Transfer



After Embryo Transfer

Follow nursing team
guidance for pregnancy
testing

Continue Treatment
Medications (if applicable)

Follow the clinic's
instructions for next steps
based on the results

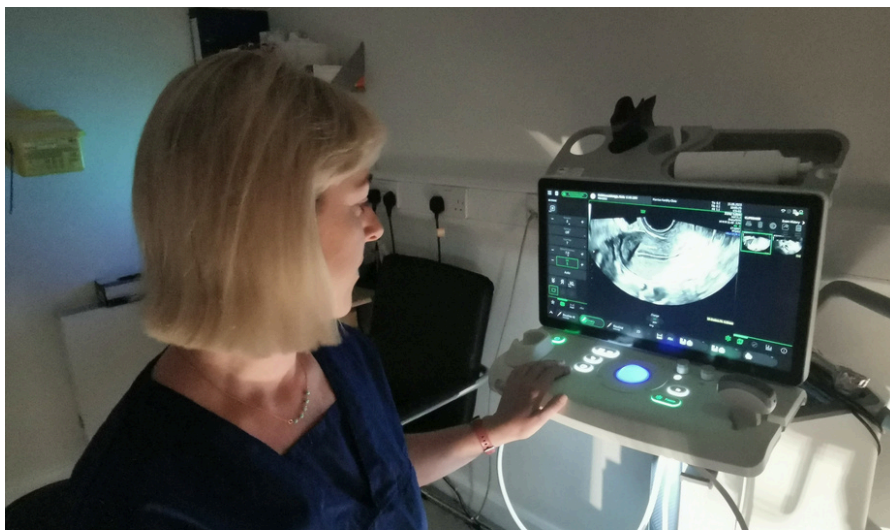
Preparation for Transfer

Preparation of the endometrium (lining of the uterus)

- It is essential that the lining of the uterus (endometrium) is at the appropriate stage of the menstrual cycle and is of appropriate thickness to allow implantation.
- This is most commonly achieved using hormonal treatment in the form of oestrogen and progesterone (HRT or hormone replacement therapy cycle), prior downregulation is sometimes added.
- Your doctor will discuss with you which approach is best in your case and you will be given instructions regarding the medication and a prescription.

Monitoring the uterus and ovaries

- The lining is monitored by ultrasound scan and when it reaches approximately 7mm or more, a day is scheduled for the eggs to be thawed.
- If the lining is not optimal thickness, the dose of oestrogen medication may need to be increased and a further scan is arranged 3-7 days later.
- If the lining appears abnormal at any stage (eg the appearance of a polyp), or if there is an ovarian cyst, embryo transfer may need to be deferred to a later cycle pending further investigation.
- Progesterone treatment, in the form of pessaries or injections, is generally started 5 days prior to the scheduled day of transfer. Transfers generally happen in the early afternoon, but your embryologist will confirm the time with you.



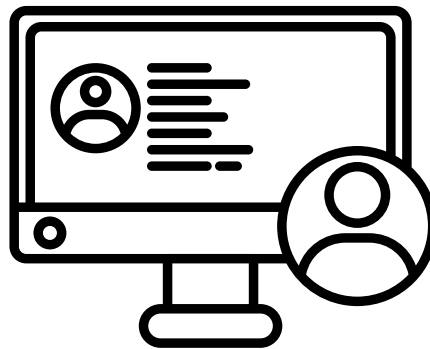
Sperm Collection

Sperm may be provided by either a partner or a donor. Please review the section relevant to your circumstances .

Donor Sperm Collection

- If you are using donor sperm for this treatment, this sperm must be in storage at Merrion Fertility Clinic before your treatment with frozen eggs can begin.
- For more detailed information on treatment with donor sperm, please visit our website.

[Donor Services Information](#)



Partner Sperm Collection

- It will be discussed with the lab team whether the sample can be produced at your home or in the clinic. Typically, if it is possible for you to get to Merrion Fertility Clinic within an hour of sample production, it is possible to do this at home.
- If you have concerns about being able to produce a sample on the day of egg collection, it is very important to let the nursing team know in advance.
- This can be accommodated by having you producing a sample in advance of the egg thaw procedure and freezing the sperm until the eggs are thawed.
- If you do not have frozen sperm, and are unable to produce sperm on the day, medications such as Viagra or Cialis can be prescribed for you. The eggs will not be thawed until there is sperm available to fertilise them.

Partner Sperm Collection (continued)

2-3 Day Rule

- In order to optimize the quality of the sperm, it is recommended that you abstain from ejaculating at least 2 days prior to producing the sample for treatment.
- However, prolonged abstinence can also negatively affect sperm quality. You should not abstain for longer than 3 days.

Sperm Collection Instructions

- Wash the genital area thoroughly on the morning of sample production.
- Wash hands immediately before and after sample production.
- Always use the sample container provided by Merrion Fertility Clinic, other containers may be toxic.
- Do not use any lubricants or other products.
- Do not collect the sample using a condom.
- The sample should be provided by masturbation only. Do not produce the sample by withdrawal during intercourse.

If producing sample at home

- For the quality of the sperm sample to be maintained, it is important that the sample is transported at body temperature. You can do this by keeping it close to your body e.g., inside your jacket. Do not transport the sample in a bag.
- The sample must be received within one hour of production. Delays can cause the sperm motility to decrease, therefore please provide the sample to our lab team as soon as possible.

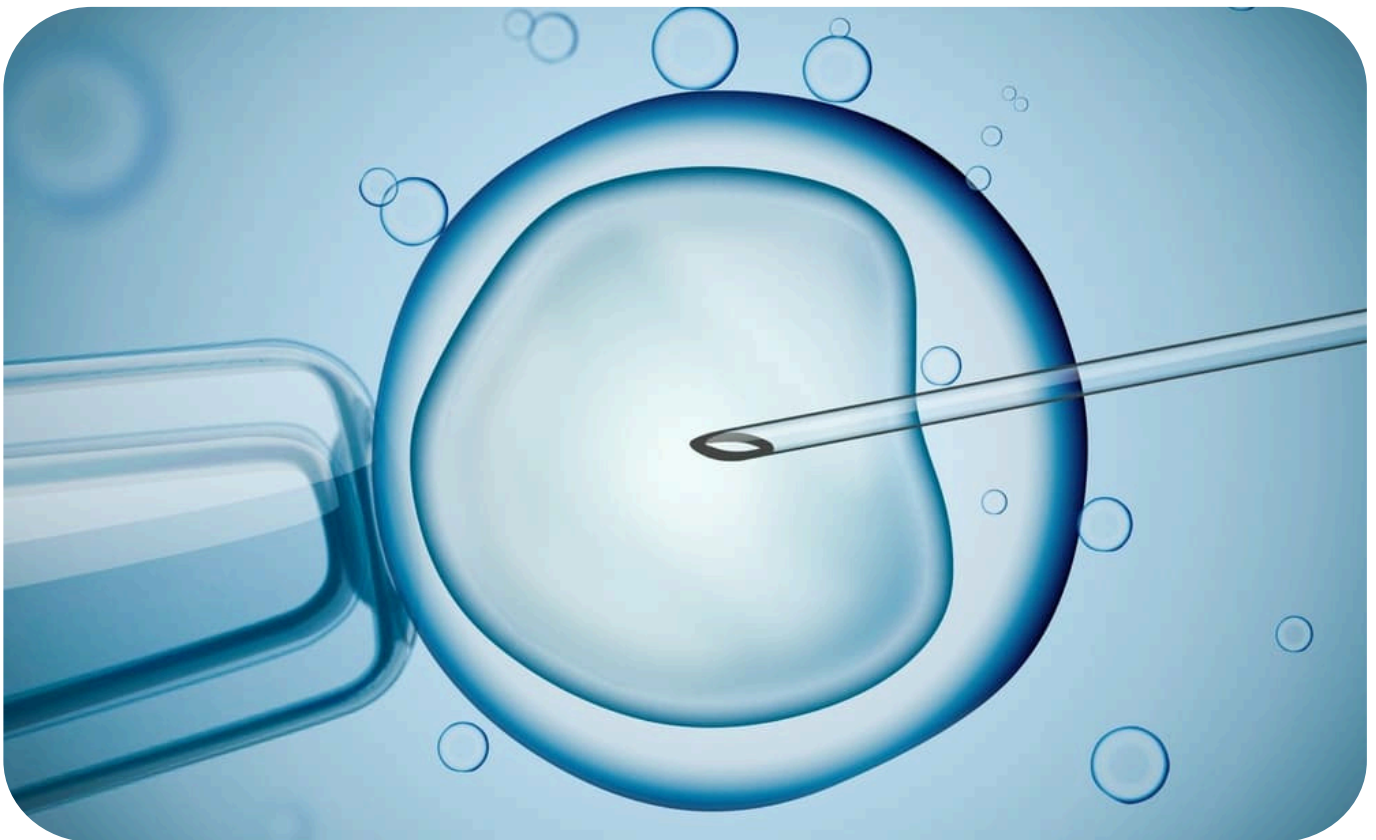


Fertilisation - Egg Thaw and ICSI

The process begins when the required number of eggs are removed from storage and thawed. Following thawing they are kept in a special media for 2 hours before they are injected with individually selected sperm. The process of fertilisation takes time, so the injected eggs are left over night before being assessed by the embryology team.

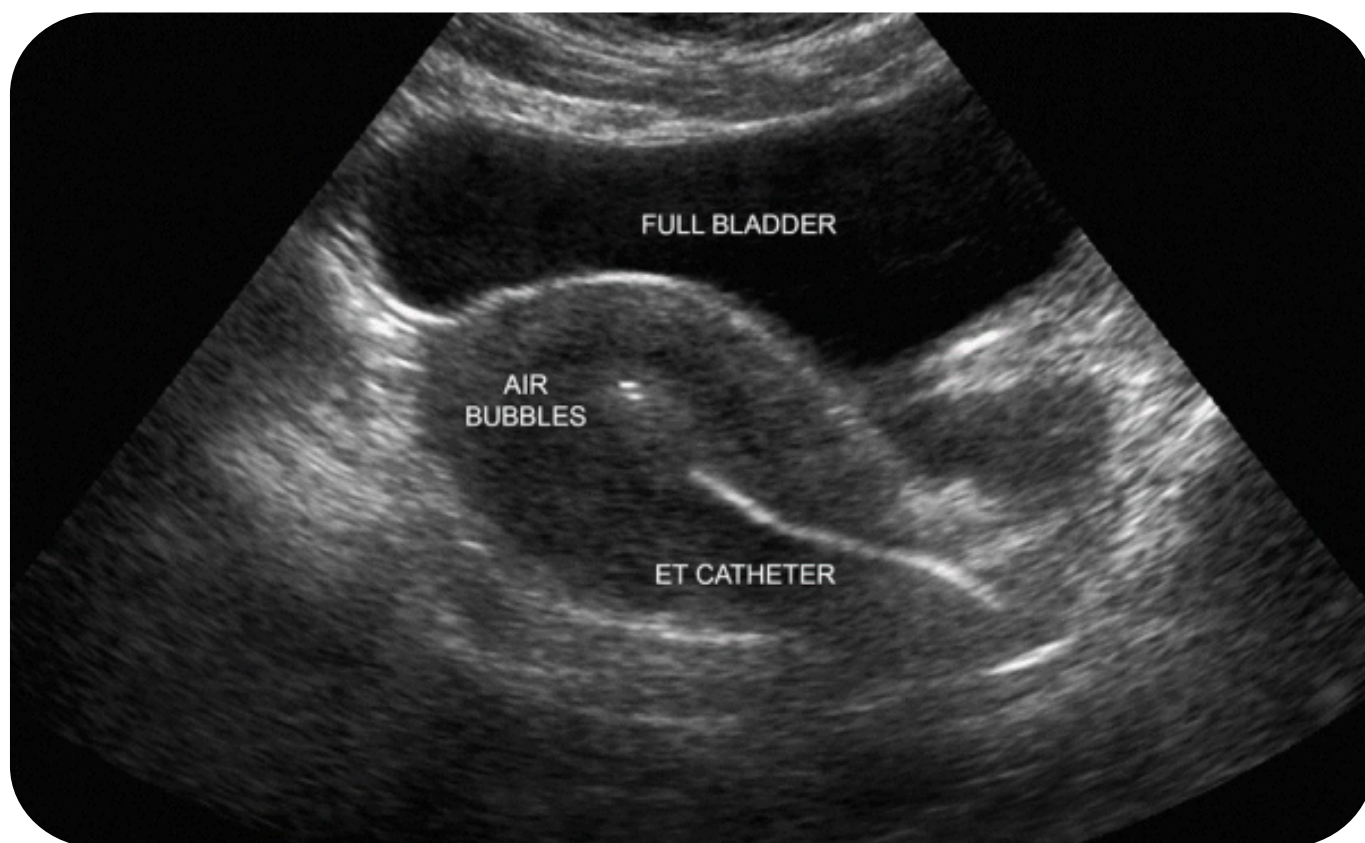
In the morning following the egg thaw, you will be contacted by your embryologist to let you know how many have fertilised. After approximately 24 hours, a normally fertilised egg should divide into 2 cells. At this stage, it is called an embryo. These 2 cells subsequently divide into 4 cells, then 8, then 16 and so on. By Day 4 of development, the number of cells is now too great to be counted individually, and the embryo has formed what is called a morula. From this point on, the embryo is beginning to develop into what we call the blastocyst stage.

In the majority of cases the embryo transfer will take place on day 5. For some people, it may be a better option to have a transfer on day 3. The embryology team will discuss this with you, every case is monitored, and the recommendation will be made based on your individual circumstances. If there is more than one good quality blastocyst available, they can be frozen.



Embryo Transfer

- Embryo transfer involves placing one (or two) embryos in the uterus (womb), where they will hopefully implant and lead to a pregnancy.
- Medication or sedation is not typically required for this procedure.
- Embryo transfer is performed by placing a speculum in the vagina (similar to the procedure for taking a smear test) and then gently passing a very fine tube (catheter) containing the embryo into the uterus, generally under transabdominal ultrasound control.



After Treatment

- Following embryo transfer, the nurse will provide guidance of what to do up to the day of your pregnancy test.
- You will be advised to follow a pregnancy-friendly diet and continue to avoid smoking and drinking alcohol.
- It is very important to continue your progesterone support at this time.
- The two weeks between embryo transfer and pregnancy test are often described as the most stressful time.
- Please continue to take care of yourself and avoid any additional stress in your life.

Pregnancy testing

- Pregnancy testing is done by HCG blood test taken at the clinic.
- You will be provided with a date to attend for this.
- A nurse will contact you by phone with the result.
- Unfortunately, a bleed may occur prior to your testing day. Progesterone support will not always prevent a bleed. If this happens, please contact our nursing team for guidance and support.

Positive Outcome

- An early pregnancy scan will be arranged for approximately 3 weeks later (around 7-8 weeks of pregnancy).
- For positive outcome, still continue all medications until 8 weeks (pregnancy scan) or longer if required
- We will ask you to inform us which maternity hospital and obstetrician you plan to attend for your pregnancy care. A letter will be sent from your doctor at Merrion Fertility Clinic to your GP and to your obstetrician in the hospital you choose.
- Remember to continue your pregnancy-friendly lifestyle and continue to take folic acid and vitamin D.

After Treatment (Continued)

Your pregnancy test is negative

- When the test is negative, there can be a deep sense of loss. Emotional support is invaluable at this stage.
- You will be offered a review appointment with the doctor as part of your treatment cycle.
- Prior to this appointment, your case will be discussed in detail by our multidisciplinary team of doctors, nurses, and embryologists.
- A member of our team will contact you and advise you of the future plan and answer any questions you may have.
- If you have frozen embryos in storage, these can be used as part of a 'Frozen Embryo Transfer' cycle (FET cycle).



What if I Have Questions?

The staff at Merrion Fertility Clinic are here to assist you with any additional questions you may have.

- Reception: (01) 556 7900
- Contact our team through the Patient Portal.

[Patient Portal](#)



**Expert care
with compassion,
honesty & trust**