

Egg Freezing Oocyte Vitrification

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Tests Required

The following tests are required to be carried out prior to egg freezing treatment treatment:

- Chlamydia
- Body Mass Index (BMI)
- Blood Pressure
- Full Blood Count (FBC)

These are the standard tests required. Based on your circumstances, your doctor may request further investigations.

Our administration and nursing teams will contact you to schedule these tests.

Infection Screening

- For egg freezing cycles, HIV and Hepatitis Screening is required. This is done at Merrion Fertility Clinic.
- These are blood tests and must be performed within 3-months of egg collection
- Our nursing team will contact you to schedule this test.
- You will also be asked to compete an Infection Risk Declaration Form. This will be sent to you via email.

Treatment Scheduling Phone Call

- Our nurses will contact you to discuss provisional dates for your treatment cycle. Your start date will be based on your menstrual cycle, as guided by our nursing team.
- The nurse will tell you when you need to next contact the clinic to confirm your start dates this will usually be Day 1 of your menstrual cycle.



OV Cryopreservation Treatment Consent

- Before beginning treatment, you must agree and sign a consent form.
- You will receive the consent form in advance to review the information and consider any details.
- You will have a pre-treatment online consultation to discuss and complete your treatment consent form.

Look After Yourself

Merrion Fertility Clinic are here to support you through your egg freezing cycle and it is important to understand what the treatment entails.

As well as being physically demanding, treatment can also be mentally and emotionally demanding. It is important to take care of your physical and mental health during this time.

Try different coping mechanisms.

- These can look different for everyone. Do something that makes you feel good. Whether it is reading a book, journaling, talking to a friend or going for a walk.
- Get support.
 - Consider getting professional support through counselling.
 - Join a support group to talk to others who are going through fertility treatment.



Support and Counselling

Merrion Fertility Clinic does provide a counselling service as well as a support group. Additional support may be helpful throughout your treatment. The support group is free for patients, however the individual counselling sessions have an additional charge.

For further information please visit

- Merrion Fertility Clinic Counselling Services
- <u>Merrion Fertility Support Group</u>

Optimising Diet and Lifestyle

While undergoing treatment it is important to prepare your body.

- Continue to take folic acid, vitamin D and any other supplement recommended by your doctor.
- Regular exercise is recommended and avoid drinking excessive alcohol intake and smoking.
- For further information and guidance see Merrion Fertility Clinic Nutritional Advice

If you are concerned about your diet, Merrion Fertility Clinic works with a dietician. - Orla Walsh Nutrition. Please inform our administration team if you wish to be referred.



Prescription and Pharmacy Guidance

Your treatment plan will involve taking prescribed medications under the guidance of our clinical team. The details related to fertility medications can be intricate and require the expertise of experienced pharmacists. To ensure comprehensive support for our patients, Merrion Fertility Clinic has partnered with Rockfield Pharmacy located in Dublin 16.

Rockfield Pharmacy specializes in fertility medications and has a dedicated team to assist individuals undergoing fertility treatment. This partnership aims to simplify the process for patients while also having experts advise in the distribution of these medications.

Once your prescription is ready, it will be securely transmitted to Rockfield Pharmacy through the secure Heathmail network. Upon receipt, a representative from Rockfield will contact you by phone to offer the following options:

- 1. **Home Delivery/Courier Service:** Choose to have your medications delivered to your residence. This service is provided free of charge and is available to residents anywhere in Ireland.
- 2. **In-Person Pickup:** Opt to personally collect your medications from the Rockfield Pharmacy location.
- 3. **Alternative Pharmacy:** Select the option to have your prescription sent via Healthmail to a pharmacy of your choosing within the Republic of Ireland.

If you decide on option one, medication delivery, please note that this arrangement is between you and the pharmacy. It's important to be aware that Merrion Fertility Clinic bears no responsibility for any delivery-related issues. We also want to emphasize the stringent data protection and confidentiality measures in place with Rockfield Pharmacy. Your information's security is well preserved through appropriate safeguards. It's worth noting that Rockfield Pharmacy will only have access to information present on the prescription and your contact number. Access to your medical records will not be granted.

Our priority is to facilitate a smooth and secure medication acquisition process, ensuring your comfort and well-being throughout your fertility treatment journey. If you have any questions or require further clarification, please feel free to contact our team.

Rockfield Pharmacy Information

Address: Rockfield Pharmacy, Balally Luas Stop, Dundrum, Dublin 16

Contact Number: (01) 296 7340

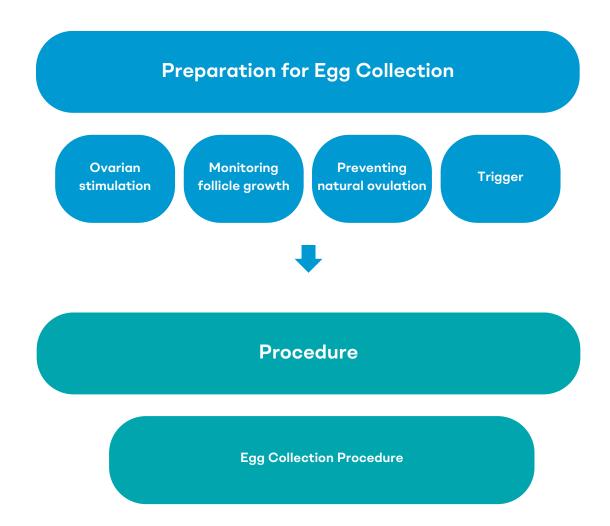
Opening Hours:

Monday 9 a.m.-7 p.m. Tuesday 9 a.m.-7 p.m. Wednesday 9 a.m.-7 p.m. Thursday 9 a.m.-7 p.m. Friday 9 a.m.-7 p.m. Saturday 12p.m.-7 p.m. Sunday Closed



During Treatment

Overview of Process



Important: Please refrain from commencing any prescribed medication until instructed by the nursing team. As your medication is tailored to your specific circumstances, we strongly advise against following guidance or instructions from alternative sources. If you have any uncertainties regarding your medications, we encourage you to seek clarification from the nursing team



Preparation for Egg Collection

Ovarian stimulation

Naturally, ovaries would usually produce one egg per cycle. For egg freezing we need the ovaries to produce multiple eggs. We achieve this through a process called ovarian stimulation.

Why?

- The more eggs that are collected, the more embryos can be created when you choose to do so.
- However, not all eggs retrieved in a cycle will fertilise (usually 50–70% do) and not all fertilised eggs will go on to form healthy embryos (about 50% do).
- Most egg freezing programmes aim to stimulate somewhere between 8 and 14 eggs during each treatment cycle.

How?

- Stimulation involves the injection of medications for 8-14 days.
- The dose is decided for each patient individually.
- Eggs cannot be seen but follicles (a follicle should have an egg) can be seen clearly on ultrasound scan.
- If you are having sexual intercourse, it is essential you use barrier protection from the outset of your stimulation.

Stimulation Timing

• The nurse will give you instructions for starting your stimulation medication.

Stimulation Medications

- As every patient's stimulation is different please see the instructional videos that is relevant to your treatment.
- For your individual dosage requirements and timings for these drugs, please refer to the information provided to you by the nurses.
- Please note the correct storage temperature of each medication, as advised by your pharmacist.

Gonal-FInstruction VideoMenopurInstruction VideoLuveris.Instruction Video

RekovelleInstruction VideoPergoverisInstruction Video



Monitoring follicle growth

- Throughout the stimulation phase, the growth and number of ovarian follicles are monitored using vaginal ultrasound scans and sometimes blood tests.
- Generally, 2-5 monitoring visits are required.
- After 7-12 days of stimulation injections, the follicles will almost be mature.

Preventing natural ovulation

- To collect the eggs for freezing, the eggs need to remain in their follicles. Therefore, the ovaries must be prevented from ovulating.
- Stimulation causes oestrogen levels to rise, and this could induce ovulation. Therefore, a second type of hormone must be introduced to control this.
- Two treatments have been developed to prevent spontaneous ovulation: 'downregulation' and 'antagonist'.
- When undergoing OV your doctor will select the optimal strategy for you as part of your treatment plan.

Downregulation

- Medication is started 2-3 weeks before stimulation drugs and continued until just before egg collection.
- Either nasal spray or morning injection, is usually started on Day 21 of your menstrual cycle. Please see the instructional videos below for the downregulation injection if applicable to you.
- Please note the correct storage temperature of each medication, as advised by your pharmacist.
- If you are having sexual intercourse, it is essential you use protection from Day 1 of your cycle.

Buserelin Instruction Video



Antagonist

- Medication is added several days after starting hormonal stimulation and continued until just before egg collection.
- The first daily dose of your Antagonist medication (Cetrotide) will be advised by the nurse when you attend for your scan appointment. This is in injection form.
- If you are having sexual intercourse, it is essential you use protection from the outset of your stimulation.

Please see the instructional videos below for the agonist injection applicable to you.Please note the correct storage temperature of each medication, as advised by your pharmacist.

Cetrotide Instruction Video

Trigger injection

- When some of the follicles have reached the required size, the woman is ready for the trigger injection.
- A 'trigger' injection starts the process of oocyte maturation. This is the egg's final stage of development.
- <u>Timing of the injection is critical.</u>
- Typically, the injection is given 36 hours before the procedure is scheduled.
- The specific information for this will be personalised for you, and will be provided by the nurses in advance of undergoing your treatment.
- In some circumstances, both Ovitrelle and Buserelin injections will be recommended.

Please note the correct storage temperature of each medication, as advised by your pharmacist. Please see the instructional videos below for the trigger injection specific to you.

Ovitrelle	Instruction Video
Buserelin	Instruction Video



Medication Side Effects

It is common to experience minor side effects while on treatment. These may include:

- mild bruising at the site of injections
- headaches
- mood changes
- menopausal symptoms
- hot flushes (for those using downregulation) mild abdominal bloating and nausea

These side-effects are usually short-lived and are generally no cause for concern. If they are bothering you, don't hesitate to discuss any of these symptoms with your clinical team as they may be able to adjust your medication or offer other help.







Procedure

Egg Collection

Overview

- Egg collection is a minor surgical procedure.
- It involves passing a fine needle through the top of the vagina and then into the ovaries.
- This procedure is done using ultrasound. This means that the doctor can see the needle, the follicles and the ovaries at all times.
- Using gentle suction, each follicle is drained, collecting the eggs that are within.
- The fluid that is drained is monitored by an embryologist and examined under a microscope.
- The patient is sedated for this procedure.
- A Consultant Anaesthetist administers the sedation and monitors the patient throughout the procedure.
- Most patients do experience some discomfort after the egg collection procedure. The level of discomfort varies for each patient.
- It is generally advised that all patients rest and do not go to work the day of the procedure or the day after.

Patient's Preparation for Procedure Day prior to procedure

- This is a 'drug free day'. You should not be taking any medications on this day.
- You are required to fast from midnight the night prior to egg collection. This means not eating or drinking anything, including water.
- If you are taking any other medication, please inform the nursing team.
- The timing of this procedure is crucial and has been specifically chosen for your treatment plan.
- Please plan ahead and be organised to arrive on time for your appointment.

Day of the procedure

- Please continue to fast until after the procedure.
- Please allow for spending approx. 3 hours at the clinic.
- As the eggs being collected are microscopic, great care is taken to ensure the environment they are exposed to is free from any potential contaminants. This means that it is important not to ear make up, nail polish, perfume, heavily scented deodorant, or jewellery.



- The length of the procedure is typically 5-15 minutes, but can be longer in some circumstances.
- After the procedure you will be monitored by our nurses while you recover from the sedation.
- You will discuss with the clinical team regarding the number of eggs that have been collected.
- The nurses will provide you with post operative instructions such as pain relief.
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Egg Collection Risks

As with any surgical procedure, there are potential risks associated with egg collection. Mild pain in the first 48-72 hours is normal and usually well controlled with simple painkillers.

- We recommend paracetamol-based drugs rather than non-steroidal anti inflammatory drugs such as ibuprofen.
- It is also better to avoid drugs containing codeine as this can cause constipation, common after egg collection.
- It is common to have a small amount of vaginal bleeding after the procedure.
- Injury to internal organs (bowel, bladder, blood vessels) from the needle used during the procedure is also extremely rare (less than 1 in 1,000).
- Rarely, there will be an adverse reaction to the drugs used for sedation and pain relief during the egg collection, approx. 0.4 per 1000





After Treatment

You will be contacted by the embryologist the following morning to advise of the number of oocytes vitrified. Following your treatment cycle, you will be offered a return appointment with the doctor to discuss the cycle and future plan recommended for you.

Using Frozen Eggs

Your eggs will remain in storage until you are ready to use. Please note that Merrion Fertility Clinic does have age restrictions for undergoing treatment. Therefore, when you return to use your eggs, it must be within the approved timelines. This timeframe will be discussed with you at the consent signing stage.

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 optimal treatment for you. If your health has become compromised in the time that has passed since your egg freezing treatment, your doctor may not recommend proceeding with treatment if pregnancy could put you at risk.

The creation of embryos from the frozen eggs requires sperm. Depending on your circumstances this may be using partner sperm or donor sperm. If using partner sperm, your partner will undergo investigations, and then provide a sample. The process for donor sperm will be facilitated by Merrion Fertility Clinic.

Using frozen eggs requires them to be thawed and fertilized with the ICSI technique (intracytoplasmic sperm injection). This is a process where an individual sperm is selected and injected directly into a mature egg under a microscope. How many eggs are thawed and fertilized is dependent on your personal circumstances. Once the eggs are fertilized these will be develop in the lab and become embryos. The embryologists will assess the embryos and select the best one for transfer. Surplus viable embryos are then frozen.

At the same time, you will be preparing your body for embryo transfer, and pregnancy. The treatment for this is individualised and your doctor will select the best option for you.



Cancelled/Failed Cycle

Even though treatments and approaches are carefully tailored for individual situations and patients, unfortunately sometimes the treatment cycle does not proceed as planned. Some of the more common reasons for cycle cancellation or failure are outlined in this section. When a treatment cycle is cancelled, your case will be discussed at the review meeting which is a multi-disciplinary meeting attended by senior members of the Clinical, Nursing and Embryology team. A revised protocol for your next treatment cycle will be decided on and, afterwards, you will be called by a member of the Nursing team to discuss dates for your next cycle.

Ovarian cysts

- Approximately 5% of patients will develop simple ovarian cysts either naturally or as a result of medication. These cysts can produce oestrogen, and may interfere with the progress of your treatment cycle.
- Cysts generally resolve either spontaneously, with the help of an oral contraceptive pill or by staying on downregulation medication for an additional week. If the cyst fails to resolve, a minor procedure may be required to drain it.
- Some cycles may need to be cancelled and rescheduled if significant cysts are found

Ovarian hyperstimulation syndrome (OHSS)

- Some patients, particularly those with polycystic ovaries, may over-respond to the chosen dose of stimulation and are at risk of a serious condition called OHSS or ovarian hyperstimulation syndrome.
- In OHSS, the ovaries swell and very high levels of oestrogen and other chemicals are released, affecting the integrity of the woman's small blood vessels.

In severe cases, the following may occur:

- affected women feel unwell and nauseous
- ovarian swelling and fluid leaking from the blood vessels causes abdominal discomfort and pain
- The kidneys may fail to work efficiently
- Fluid can collect around the lungs and around the heart
- The condition subsides as the ovaries return to normal size, but it will be made worse if pregnancy occurs.
- Where there is concern that OHSS may develop, it is best to give agonist trigger instead the usual hCG trigger and not to proceed with embryo transfer. Any embryos that have developed are frozen and a frozen embryo transfer is performed at a later date when the woman has recovered fully.



Failed/inadequate stimulation

- Even though the dose of stimulation drugs used is specifically tailored to each woman based on her age and ovarian reserve, some women respond poorly.
- In approximately 5% of cycles, treatment will be cancelled prior to egg collection because of poor response, i.e. only one or two follicles develop, or a low number in someone expected to produce more



Expert care with compassion, honesty & trust