

# What happens in the IVF lab

Embryologists are specially trained scientists who care for and look after your sperm, eggs and embryos. Embryologists are Healthcare Professionals registered with the Medical Sciences Council of New Zealand.

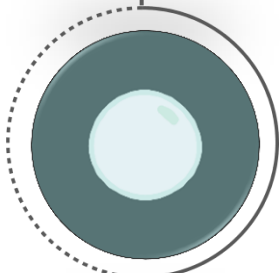
## Stage 1: Egg and sperm collection



### Getting Ready

Leading up to treatment, we encourage healthy lifestyles for both men and women. Eat lots of healthy food, and limit alcohol and caffeine (1 cup of coffee a day is fine). You must be smoke and drug free.

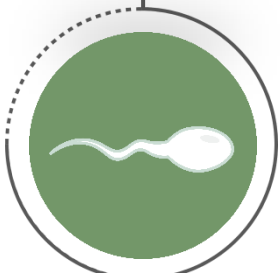
As you get closer to egg collection day, it's helpful for partners who will be providing a fresh sample of sperm on the day to have frequent ejaculations (about every 2-3 days).



### Egg collection

On the day of egg collection, after being checked in by the nurse, you will meet an embryologist. One of us will be in theatre with you to look for your eggs as the doctor drains the fluid from the follicles on the ovaries (aspiration).

You will be told how many eggs were collected following your procedure.



### Sperm collection

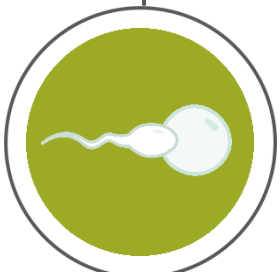
After the egg collection, your partner needs to produce a semen sample, if using fresh sperm. We have a private room available with Wi-Fi.



- You **must** bring photo ID. This can be a driver's license or passport
- Remember you must be 2-3 days without sex or ejaculation

Your embryologist will speak to you before you go home about the semen sample and confirm if your treatment will be IVF or ICSI.

If you are anxious about producing a sample at the clinic, please phone the lab **(before the egg collection day)** to talk about back up sperm freezing or bringing the sample from home



### Insemination

Insemination happens around four hours after your eggs have been collected.

**We will add sperm to your eggs by standard insemination (IVF)** if your sperm has 'washed' up well. Washing the sperm is a process where we separate the dead and immotile sperm from the strong, motile sperm.

With standard insemination, we add a large number of motile sperm to the dish with your eggs. Overnight, sperm swim to the eggs. Approximately 60-80% of eggs should fertilise in the presence of sperm.

If your doctor has recommended **Intracytoplasmic Sperm Injection (ICSI)** for male factor infertility, we will inject **all** the mature eggs. On average, 80% of eggs are expected to be mature.

A single sperm is carefully injected into each mature egg. Sometimes, the eggs do not survive the injection and this can happen up to 5% of the time.

# Stage 2: Embryo growth

## Day 1 after egg collection



Fertilised egg

### Fertilisation

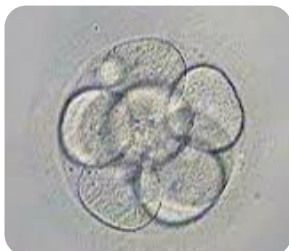
Your embryo is one day old! Your embryologist will check your eggs for fertilisation. Usually, **60-80%** of eggs fertilise.

### Results

Your embryologist will phone you in the morning (the day after egg collection) with your fertilisation results. Very occasionally, failed fertilisation occurs. This is when no eggs have fertilised. This happens in around 1-3% of cycles.

A nurse will call you in the afternoon to check how you are and give you a provisional transfer time on day 3.

## Day 3 after egg collection

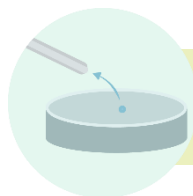


Day 3 embryo with 8 cells

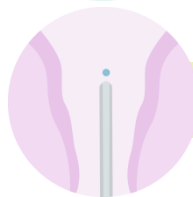
Your embryologist will phone you in the morning to confirm whether your transfer will go ahead today (day 3) or wait an extra 2 days (day 5). This decision is based on how the embryo develops over the last 3 days.

### Embryo transfer

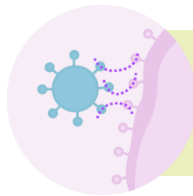
If the transfer goes ahead on this day, your embryologist will select your best embryo for transfer.



1. They will load the embryo into a catheter for the doctor to place in your uterus.



2. The embryo is passed into your womb



3. For every transfer at Fertility Plus, your embryo is transferred in 'Embryo glue'. Embryo glue gives your embryo a better chance of implanting into the womb

- Transfers are similar to having a smear test done.
- You will need a full bladder for this procedure.
- Embryo transfers do not involve sedation so you are able to eat normally.

## Day 5 – 6



Blastocyst

After your embryo transfer, whether on day 3 or day 5, any leftover embryos will be assessed for freezing at the blastocyst stage (day 5-6).

**On average about 30% of fertilised eggs form blastocysts.** In some couples, we see much higher than this and in some couples no blastocysts develop. 50% of our couples have embryos suitable for freezing.

**Your embryologist will call you on day 6 to let you know if your embryos were suitable for freezing.** Your embryologist will email you a lab summary of your cycle after day 6.

If you have any questions for the embryology team, please feel free to contact us on [fertlab@adhb.govt.nz](mailto:fertlab@adhb.govt.nz)