



Egg Donation and the
In Vitro Fertilisation (IVF)
Treatment Cycle



What the cycle involves in brief

In a natural menstrual cycle, the hormone FSH (follicle stimulating hormone) normally stimulates a group of about 10 eggs to develop, one of which matures and goes onto ovulate, the rest disintegrate and get reabsorbed. In egg donation, donors undergo a very short IVF treatment cycle where the ovary is stimulated with the same hormone FSH, to mature this group of eggs.

These eggs are removed and fertilised in a small dish. As a result, embryos usually develop. One or two of these fresh embryos are then placed into the recipient (the woman receiving the eggs) giving her the best chance of becoming pregnant. If there are any spare embryos, these can sometimes be stored for her to use in the future.

Most of us are born with about 500,000 eggs in each ovary which leaves thousands for the future so this should not affect your fertility and if it is likely to, it will be flagged up at the outset and you would not be able to continue.

What happens at the first doctor's appointment

The doctor will start by taking your full medical history, discuss the treatment with you in detail, and begin the screening process.

Routine screening involves taking a blood sample to test for certain conditions and these will be explained to you by the doctor at the time.

It is highly likely that you will have a discussion about managing contraception, particularly if you have either a coil or implant in situ, and it is also likely that you will be put on 'the Pill' at some time so that your cycle of treatment can be managed.

In addition you will have an internal scan to check that there are no underlying problems with your ovaries or womb and vaginal swabs are taken to rule out any infection.



The Egg Donation Treatment Cycle

Leading up to the egg donation treatment cycle

What happens in the lead up to treatment may vary from place to place, but on the whole treatment centres usually follow the same format. We will let you know how it all works and will give you specific written information about the centre you will go to.

Sometimes you will be offered a second appointment with a doctor about six to eight weeks after the first and it is timed to suit you.

The purpose of this appointment is:

-  For the doctor to talk you through the results of the tests.
-  To go through the consent forms for the treatment cycle which you will sign.
-  To give you a prescription for the drugs that you will need to take.
-  To see a nurse who will explain the process and start you off on the egg donation treatment cycle. It will be your decision as to when it is convenient for you to start.

Starting the egg donation treatment cycle

At the second appointment you will be asked for the date of your last period and it will be discussed with you about when you want to start the treatment. If you wish to start in your next monthly cycle, the medication that you need to take and when to take it will be explained to you. You will also be given a written 'schedule' which will be your own individual treatment plan which you can take home. The centre will take you through how and when the medicines are delivered and you will be given contact numbers in case of any difficulties or problems.

Once you have decided when you wish to begin the treatment, the 'treatment cycle' starts on the first day of your period.

The egg donation treatment cycle itself

This cycle will be explained in days, Day 1 being the first day of bleeding. You might well have been put on the 'pill' and the first day of bleeding will usually occur about three days after you have been told to stop taking it. It might be very light and scanty, but if you are in any doubt ring either the centre or, if you can't get through and are worried, us at Altrui.

Day 1: Your period starts. If you have spotting or light bleeding at the start of a period, Day 1 will be the first day of full, fresh bleeding.

Day 2/3: You will attend the Licensed Treatment Centre for a scan, and start daily injections to stimulate your ovaries to mature the eggs. You can give these injections yourself as they



come fully loaded like a diabetic injection with a very small fine needle. The response to this drug varies from person to person, and during the course of taking it, you might find that you will be asked either to decrease or increase the amount.

This drug is the same hormone that you naturally produce each month to make the egg grow. This is Follicle Stimulating Hormone (FSH), but with this treatment the amount which you are given is more than you would naturally produce, to develop and mature the group of eggs rather than the usual one. There may be side effects to the FSH and these are:

- 🕒 Feeling bloated and a bit sick
- 🕒 You might have tender breasts
- 🕒 You could feel quite emotional

Day 2-5: You will start a second drug to stop you ovulating (releasing your eggs) before the doctors have had a chance to collect them. This is what your body will naturally want to do once the eggs have reached a certain size and obviously this is not what anyone wants to happen. So you need something to hold them back and this medication is the one that controls this. For the body it is as though you go into the menopause where nothing is happening in terms of fertility, but actually it just holds everything for the few days until the eggs can be collected. There is a choice of how this medication can be taken, and the decision will be made at the beginning by you and the medical team together. You may prefer to have it nasally much like you would have sinus medication rather than as a second injection. Either way, it very rarely causes side effects, but if you have any they are similar to the ones that people experience when they go through the menopause. They are:

- 🕒 Feeling a bit headachy
- 🕒 Feeling very tired even with a good night's sleep
- 🕒 Feeling quite emotional

You will continue to take both drugs up until two nights before your egg collection is scheduled. Some donors require additional vaginal scans and/or blood tests during this time, and the unit will let you know in advance if this will be necessary for you.

Day 9: You will have another internal scan to see how the eggs are developing in the ovaries. The aim is for the follicles which contain the eggs to measure about 18 to 20 millimetres in diameter. Some people might need another scan which is usually done 48 hours later if the follicles are not quite large enough.

Two days before the eggs are due to be collected, you will be asked to stop the drugs.

About 36 hours before the collection, you will have one final injection of a different drug. This is given at night and it ripens the eggs ready for them to be collected. There are no side effects associated with this drug. The timing of this drug is important. Given too late the eggs will not be ripe, and too early the eggs might be released before they can be recovered.



Day 10, 11 or 12: It is not possible to predict exactly when the eggs are going to be ready for collection as you go through the cycle, as it is only on the Day 9 scan that this can be accurately determined. However, it is usually sometime around this point, although some donors have reached egg collection very quickly and others take longer. This response is very individual and you will know by the results of the scans when egg collection is likely.

What is involved in the recipient's treatment cycle?

Basically your menstrual (monthly) cycles will be synchronised, with both women (you and the recipient) usually going on the pill for a month or so before the actual treatment cycle starts.

The clinic looking after you will tell you both to stop the pill at about the same time. As an egg donor you will then start the stimulation process, whilst the recipient will be started on a drug to build up the lining of her womb ready for implantation by the embryo.

The aim is that you will have the hormone to mature the eggs whilst the lining of the recipient's womb is thickened. Each of you will have scans and blood tests during this time to check that all is going according to plan.

The donation process mimics the natural path of a normal menstrual cycle – building the lining of the womb, developing the eggs, ovulating (egg collection) and finally implantation or not.



The Egg Collection

You will be asked to take a pain-relieving medicine one hour before the procedure as this will make the whole process more comfortable for you. Once you are in the egg collection room you will be introduced to the team involved which may include the doctor, nurse, embryologist, an anaesthetist and his or her assistant.

You will be given sedation by an anaesthetist who keeps you asleep and pain free during and after the procedure. An ultrasound probe is placed inside the vagina with a fine needle attached to the side. Follicles are the sacs which contain the eggs, and a needle is gently passed through the vaginal wall into the follicles in the ovary. The fluid from each follicle is put into a small tube and the procedure is then repeated with the other ovary. As each egg is found, it is placed in special fluid in an incubator.

Following egg collection you will be told how many eggs were collected. The procedure usually takes about 20 minutes, depending on the number of follicles that you have, and after it, you will rest for about an hour.

Once you have had the eggs collected and you have rested, you can be taken home. It is important for you to have someone with you. Not only will they give you support, but they need to be with you after the sedation as you might feel a little light headed or nauseous.

And your task is now over. You will have given the most incredible gift anyone can give.

What happens after Egg Collection?

Following egg collection the eggs are placed in small dishes and kept in an incubator for the remainder of the day. Later, a prepared semen sample from the recipient's partner is placed with the eggs. These dishes are left in the incubator overnight to allow fertilisation to take place. The following morning there should be signs that fertilisation has occurred with embryos starting to form.

Fertilised eggs are embryos and they should develop and divide, ready for transfer into the uterus (womb) of the recipient several days after fertilisation has occurred.



The Embryo Transfer

Embryo transfer happens three to five days after egg collection when the best one or two embryos are selected by the embryologist and placed in the womb of the recipient. During this procedure an ultrasound scan is used to guide and place the embryos to where they have the highest chance of implantation. Guidelines allow the transfer of a maximum of two embryos and the decision about the number to be transferred ultimately belongs to the clinical team.

If there are any remaining embryos, and you have given your consent, these are assessed for suitability to be frozen for the couple for their future use.

👉 Embryos and Blastocysts

Life starts as two, then four, then eight cell embryos. The cells of the embryo keep dividing on a daily basis until they reach a cluster of cells. At this stage, the embryo becomes a blastocyst. It is usually Day 5 after egg collection and by transferring a blastocyst, it is at the ideal stage of development which gives the recipient the very best chance of becoming pregnant.

When will the recipient know if she is pregnant?

After the embryo, or blastocyst, has been transferred to the recipient, she will have around 14 days to wait until they find out whether or not treatment has been successful and she is pregnant.

Generally there is a 60 – 70% overall chance of her conceiving with your help from the start of treatment through to finally using all frozen embryos if she has any. We will keep you informed along the way, and tell you how many eggs and embryos there are and if she has become pregnant or not.

You will also get to know whether or not there is a baby at the end.



What are the risks of going through Egg Donation?

As you probably know, all types of medical treatments and procedures have some risks associated with them. However, the risks associated with being an egg donor are very low, and at the top clinics with which we work everything possible is done to minimise these at every stage. The risks that you might have heard about with women going through IVF affect only about 1% of all women undergoing treatment. At your first appointment at the clinic, the doctor will discuss the risks with you and the likelihood that you will be affected. If you are seriously at risk in any way it is unlikely that you will be allowed to continue with egg donation.

Any complications that might arise are usually from the stimulation drugs or the procedure itself and, although uncommon, these could include:

Ovarian Hyperstimulation Syndrome (OHSS)

Some women respond very sensitively to fertility drugs and produce many follicles. This causes the ovaries to enlarge and hormone levels to rise. It is more common in younger women and those with 'polycystic ovarian syndrome' (PCO).

Development of OHSS is not always predictable or avoidable. It is possible to identify if you have an increased risk by monitoring you with extra ultrasound scans and blood tests which will allow a change to your drug dose to avoid this. Symptoms of OHSS are most likely in the first few days after egg collection.

Pelvic infection

Pelvic infection can, very occasionally, follow an egg collection. Every effort is made to try to make sure this does not happen by performing the collection under very clean conditions and giving antibiotics to women who are at higher risk of infection. Since it is not possible to sterilise the vagina, where there are always some bacteria, a swab is taken at the outset and if there is any sign of infection then antibiotics may be given to minimise any risk.

Other complications

There is a very small risk that the needle used for egg collection can puncture the bladder, bowel or blood vessels. However, the needle used is so fine that it is unusual to have any complications. Any instances of vaginal bleeding can usually be stopped at the end of egg collection by applying pressure. If there is a concern that a tiny hole has been made antibiotics will be given.



Summary of Time and Commitment needed in an Egg Donation Cycle

The guide below shows the approximate times and occasions that you will need to allow for visits to the hospital or clinic during the treatment cycle. This can vary depending on whether more scans or tests are needed, and the table below is intended to be a general guide only.

The entire Egg donation treatment cycle takes place over approximately 10 - 12 days.

<u>1st Appt</u> for Counselling and First Doctors appt. Medical history, Scans, & blood test for screening	2 hours
<u>2nd Appt</u> about 6 - 8 weeks later (<i>or when it suits you</i>) for signing consent forms, results of tests & discussion with nurse about starting the treatment cycle	1 hour
<u>3rd Appt</u> Scan on Day 9	15 – 20 minutes
(Any subsequent scans – particularly if you have PCO)	15 - 20 minutes for each
<u>4th – 5th Appt</u> Egg Collection	Approx 20 minutes for actual collection Recovery time: 1 – 4 hours

Contact

We are always on the end of a phone or email to help resolve any problems or difficulties that are not medical. Our intention is to make everything as smooth and straightforward as we possibly can, recognising that you are giving up precious time and committing yourself to this amazing act on behalf of someone else. For all non-medical concerns or worries, don't hesitate to ring us on **0800 324 7872** (this is a free call from a landline) or **01969 667 875** (normal landline) or **0779 0769 788**.

We have strong professional links with the centres so if you are worried about any aspect of the medical side of treatment we will do our very best to get a prompt response on your behalf if necessary.

Alison Bagshawe