

### Blastocyst transfer

Fourteen years ago the Herts & Essex Fertility Centre pioneered the use of Blastocyst transfer and currently runs one of the largest programmes in the UK.

A blastocyst is an embryo that has been allowed to develop for five days before transfer. Blastocyst transfer has a significantly higher success rate than Day 2 or 3 embryo transfer, as only the strongest embryos reach the blastocyst stage. Blastocyst transfer also mimics natural conception in which the embryo travels down the fallopian tube and reaches the uterine cavity five days after fertilisation. This synchronises the development of the embryo and the lining of the womb to maximise the chance of implantation. The ability to transfer a single blastocyst with a high implantation rate as opposed to Day 2 or 3 embryos increases your chance of a healthy singleton pregnancy and will reduce the incidence of a multiple birth with its associated risks.

### Embryo freezing

Embryos can be frozen if you have more viable embryos than required for this cycle of treatment. The embryos can be safely stored in liquid nitrogen for many years. You can use them in a future treatment cycle without the additional expense and inconvenience of having to undergo subsequent ovarian stimulation and egg collection procedure.



Herts & Essex  
Fertility Centre



HERTS & ESSEX FERTILITY CENTRE

Bishops' College  
Churchgate  
Cheshunt  
Hertfordshire EN8 9XP

T: 01992 78 50 60

E: [enquiries@hertsandessexfertility.com](mailto:enquiries@hertsandessexfertility.com)

Follow us on

 [HertsEssexFertilityCentre](https://www.facebook.com/HertsEssexFertilityCentre)

 [FertilityUnit](https://twitter.com/FertilityUnit)

[www.hertsandessexfertility.com](http://www.hertsandessexfertility.com)

IVF

In Vitro Fertilisation

Herts & Essex  
Fertility Centre



# What is IVF?

In Vitro Fertilisation (IVF) means “fertilisation in glass”, and is so named as eggs are removed from the ovaries and fertilised by sperm in a glass dish in the laboratory. The resulting embryos are cultured for 2-5 days, after which the best embryo/embryos are transferred into the uterus. It is a standard fertility procedure at the Herts & Essex Fertility Centre, and we are consistently one of the top performing clinics in the UK.

## Who is it for?

The indications for recommending IVF treatment are as follows:

- Blocked or damaged fallopian tubes
- Unexplained infertility
- Following unsuccessful treatment with IUI or Ovulation Induction
- Polycystic Ovarian Syndrome
- Endometriosis
- Minor sperm abnormalities

## IVF procedures

If IVF is your recommended course of treatment, you will undergo the following procedures:

### Suppressing the natural monthly cycle (down regulation)

Downregulation is by medication to make your ovaries temporarily inactive, for easier management of your treatment cycle during stimulation with daily hormone injections. This protocol is used in women with normal ovarian reserve. There is a different protocol for women with poor ovarian reserve.

### Boosting your egg supply

Once your natural cycle is suppressed, you will have daily Follicle Stimulating Hormone (FSH) injections to promote the development of multiple follicles in your ovaries. FSH will increase the number of eggs you produce, allowing us to create more embryos and thus give greater choice for use in your treatment.

### Egg retrieval

During egg collection you will be sedated but slightly conscious, calm, relaxed and unlikely to feel any pain. Under sedation, our Fertility Consultant will extract your eggs using a special needle introduced vaginally under ultrasound guidance. Each follicle is aspirated individually until all visible follicles are drained from both ovaries. The procedure will take approximately thirty minutes, after which you will return to the recovery room to be cared for by our specialist nursing team.

### Collecting sperm

Following admission, the male partner will provide a fresh semen sample to be checked for quality and prepared by a special washing technique in the laboratory. A known concentration of the prepared sperm sample is added to your collected eggs in a culture dish and incubated.

If you are using donated sperm, your selected donor sperm is removed from frozen storage, thawed and prepared in the same way.

### Fertilisation of eggs and sperm in the laboratory

Your eggs are mixed with the sperm and incubated overnight to allow fertilisation to take place. The embryologist will assess the inseminated eggs for signs of fertilisation the following morning. On average, 60–70% of eggs will fertilise normally with the sperm provided at egg collection.

If your sperm sample on the day of egg collection is not within normal range, we can easily convert your IVF treatment cycle to ICSI whereby a single normal sperm is selected and injected directly into each egg.

### Embryo selection

Over the next few days after egg collection the embryologist will assess your embryos' development daily, recording the number of cells in each embryo as well as their quality. With a majority of our patients, the assessment made on the morning of Day 3 determines whether the embryo transfer takes place that day or whether the embryos will be cultured on to the Blastocyst stage for transfer on Day 5. This decision depends on the number of embryos being replaced, as well as the number of good quality embryos available for transfer. The embryologist will explain and guide you through this process.

### Embryo transfer

If you are to have a Day 2 or 3 transfer, with your permission, your excess embryos will be cultured on to Day 5 or 6, to see if they can progress to the Blastocyst stage. If they are good quality blastocysts and contain the visible and necessary structures known to give rise to a pregnancy, they can be frozen for use in the future.



We strongly believe that embryos should be replaced at the optimum stage of development, after proving themselves by a process of self-selection. It is for this reason that the Herts & Essex perform embryo transfer seven days a week, on Days 2 to 5 following collection.

For women under the age of 40, one or two embryos can be transferred. If you are over 40, a maximum of three embryos can be returned. The number of embryos transferred is restricted because of the risks associated with multiple births. If the remaining embryos are suitable they may be frozen for future use.