



A guide to Frozen Embryo Replacement Cycle

Introducing Fertility Plus

Fertility Plus is a leading fertility clinic based in Harley Street, dedicated to offering couples and individuals the best chance of conception in a supportive, caring and confidential environment. We believe your care is paramount and we ensure that each of our patients receive personalised care, meaning the same doctor every visit, with fixed pricing and no hidden costs.

What is Frozen Embryo Replacement Cycle?

A frozen embryo replacement cycle is the thawing of embryos which were frozen during previous IVF or related treatment and the replacing of them in the uterine cavity at the appropriate time of the menstrual cycle.

We generally prefer freezing of all embryos due to a significantly higher chance of pregnancy.



Why do frozen embryos achieve better success rates than fresh embryos in high responders?

There seems to be a change in endometrial receptivity due to ovarian stimulation, and the endometrium may go out of sync due to the rise in progesterone hormone in a fresh IVF cycle.

With ovarian stimulation there seems to be an increase in the movement (contractions) of the womb which may lower the chance of pregnancy. There is also a small risk of ovarian hyperstimulation which can lower success rates.

How do we know when the endometrial lining is going out of sync?

We routinely measure the progesterone levels just before the trigger injection. Progesterone is a hormone of the second phase, after ovulation, and when it increases due to ovarian stimulation, before collection of eggs, the endometrium goes out of sync and races a few days ahead. In these circumstances frozen embryos give us much better chances of success, rather than fresh embryos, as the transfer can be timed accordingly.

We routinely freeze the embryos unless they are not of good quality and cannot be frozen, in which case we would advise doing a fresh transfer.

What happens if my embryos are not of good quality?

In an IVF cycle, it is difficult to predict the embryo quality in advance. If the embryo quality is poor we would suggest placing embryos immediately back into the womb since they may not survive the freezing process.

When are embryos frozen?

Usually embryos are frozen on day three or at blastocyst stage. If embryos reach the blastocyst stage they have a much better chance of survival and achieve better results.

Do all embryos reach blastocyst stage?

Around 10% to 30% of embryos reach blastocyst stage. This depends on age, egg count, quality of sperm and number of eggs fertilised. In older women and women with lower reserve, the chances of embryos reaching blastocyst stage are lower. The conversion rate to blastocyst may also vary in young couples. The failure of development to a blastocyst may indicate problems with embryos. If there are very few embryos, we would prefer not to risk them to reach blastocyst stage and may freeze them on day 3.

What is the success rate of frozen embryos?

Embryos that are frozen at blastocyst stage and replaced in a double embryo transfer achieve success rates (clinical pregnancy rates) of 60% to 65% under the age of 38 and a success rate of around 40% under the age of 40. Over the age of 40, success rates are limited and vary.

The process of freezing is by fast freezing, known as vitrification. Freezing also gives us the option of testing the embryos for genetic screening if this has been planned in advance.

How is frozen embryo transfer done?

For frozen embryo replacement we generally prefer the down regulated technique where a single injection of Gonapeptyl or daily injections of Suprecur given for around two to three weeks. The aim of this is to shut down the pituitary gland and take control of the cycle. This keeps the baseline oestrogen and progesterone levels low before the 2nd phase of treatment starts.

How do we know down regulation is complete?

During a frozen cycle oestrogen tablets are started after the procedure of down regulation has started. Down regulation takes about two to three weeks and this is confirmed by an ultrasound scan. The lining of the womb is made thinner, confirmation that the ovaries do not contain any cysts and oestrogen administration is started.

What do oestrogen tablets do?

Whilst on oestrogen the aim is to build the lining of the womb to mimic nature. Usually one or two scans are done during this period. Depending on when the embryos were frozen, Cyclogest is started either four or six days prior to the embryo transfer procedure. These can be suppositories and/or an injection.

Can frozen embryo replacement be done on a natural cycle?

Yes, the frozen embryo replacement can be done on a natural cycle with minimal medication (HCG support is used). The success rates are similar to the down regulated cycle if the timing is correct. There is a small but significant possibility that the start of spontaneous ovulation may not be picked up and the cycle may be cancelled (15%-17%).

The cycle can also be done with Progynova alone, starting with the first day of the period. In a large number of cases Progynova stops follicular growth, though in some cases ovulation may happen and the cycle be cancelled (10%). The risk of cancelling in a down regulated cycle is less than 5%.

Thawing of embryos, do all embryos thaw well?

The technique of freezing has changed and embryos usually survive the freezing process very well. In a small number of cases the embryos fail to expand (start waking up) or may not be revived at all. This is less likely to occur with blastocysts as they usually recover better from minor cell damage after freezing than day 3 embryos which may have a higher rate of non-survival.

Hence it is very important to freeze very good quality embryos, as poor quality embryos do not survive the freezing process very well.

Embryo transfers can be done under sedation if speculum examinations are painful (this will incur an additional charge).

Embryo transfer process

We will ask you to have a full bladder and to come in at least half an hour before the embryo transfer. Do not wear any perfume and ask your partner not to wear aftershave. We normally advise women to empty their bladders around two hours before the procedure, and then drink approximately one to one and a half litres of clear fluid.

If sedation is planned, you would need to come after fasting and an IV line will be inserted.

One or two of the best embryos are chosen, and they are transferred with the help of a very small catheter, using a technique similar to that of a cervical smear under ultrasound guidance.

Once the procedure is done, you can go home and take a rest for the day. We do not advise taking long term rest since there is no evidence that this improves the chances of pregnancy. After an embryo transfer you can return to normal as the embryos are quite safe in the uterus and you can walk about.

After embryo transfer

After the embryo transfer procedure, it is essential that you continue the oestrogen tablets (Progynova) and the Cyclogest. If the pregnancy test is positive, these medications are to be continued for at least another four to six weeks. If at any stage you are on steroid tablets, these tablets cannot be stopped suddenly.

Pregnancy test

A pregnancy test is usually a blood test which we would do 11 to 13 days after embryo transfer. The results are sent to the consultant within about 6 to 8 hours (if done before 13:00) and the consultant will be able to either text or email you the result. If the test is positive, we plan to see you in about two to three weeks' time to plan a pregnancy scan to confirm the heartbeat. If the treatment fails, it is extremely disappointing and we suggest that you have a short period to recover. The earliest we could start treatment again would be the next period.

Pregnancy test medications

If a test is positive, we ask you to continue all the medications and arrange a scan in about six to seven weeks' time. Inform us if there is any vaginal bleeding or discharge or any sign of pain. If a test is negative, stop taking the medication, unless you are on steroids, which would need to be tapered off. If you wish to see a consultant sooner, please let us know. Counselling appointments can be arranged for those individuals who feel they need to speak to someone during this process.

Is the rate of miscarriage higher with IVF than normal conception?

The rate of miscarriage is not higher with IVF. The risk of miscarriage increases with age. IVF treatments may pick up more biochemical pregnancies since blood tests are done before the start of the period and some very early pregnancies may be detected.

What is the risk of ectopic pregnancy?

The embryos when replaced take around 4 to 6 days to start implanting. It is well known that some embryos may migrate into the tubes and implant in the fallopian tubes. It is very important to detect them and diagnose them early, though it may not be possible at all times. The incidence of ectopic pregnancy in an IVF cycle is approximately 1%.



To book a consultation with Mr Amit Shah or Mr Anil Gudi to discuss your personal requirements, please contact:

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