



What is a frozen embryo transfer (FET)?

Freezing good quality embryos offers a chance of conceiving after an unsuccessful fresh embryo transfer, or even several years following a successful transfer and pregnancy. Some MFS patients have had babies more than ten years after their embryos were originally created and frozen.

Under controlled conditions, embryos are cooled and stored at extremely cold temperatures (-196°C) which suspends their development. Once frozen, embryos can remain in liquid nitrogen for years without deterioration before being thawed and, if they survive and develop well, transferred to the woman's uterus during a frozen embryo transfer.

Using thawed frozen embryos gives the possibility of a brother or sister for a patient's baby from a single cycle of IVF or ICSI treatment - known as a conceptual sibling.

Who may benefit from FET?

- couples who achieve many good quality 'spare' embryos, following embryo transfer, which can be stored for possible future attempts to conceive
- patients who have had an egg collection for IVF or ICSI treatment, who have been advised not to go ahead with a fresh embryo transfer will have their embryos frozen for use in treatment at a later date
- a woman in a relationship about to undergo medical treatment that may make her infertile in the future can have embryos created and frozen before the treatment to give her the chance of having children with her current partner, at a later date

How are frozen embryos thawed?

The embryos are removed from the liquid nitrogen in the cryobanks and warmed to room temperature. Via a series of solutions they are brought to body temperature before being placed in an incubator for between one and five days before being transferred to the woman's uterus.

On average 75% of embryos survive being thawed but others will not continue to develop once thawed and sometimes none survive to transfer. So sometimes, if available, more embryos will be removed from storage than the patients consent to transfer. The embryologists study the quality and rate of development of the thawing embryos before deciding whether:

- to remove any more from storage
- to transfer the embryos at four to eight cells or to allow them to culture for another two to three days to blastocyst stage of development

For more information about the number of embryos to transfer, see the MFS infosheet 'Embryo Transfer and eSeT policy'.

How are the embryos transferred to the uterus?

Some thawed frozen embryos are transferred to the uterus following HRT drugs to accurately control the timing of the development of the endometrium (lining of the uterus) and the thaw of the embryos.

Where HRT is not advised, the thaw and transfer of the embryos is synchronised with the naturally developing endometrium.

During and after the embryo transfer:

- an external abdominal ultrasound scan during the procedure assists with the accuracy of the transfer of the embryo/s. For this to be effective, the patient must have a semi-full bladder so should avoid passing urine before the procedure
- a small flexible catheter is used to transfer the embryos via the cervix and into the uterus
- the patient can empty her bladder immediately after embryo transfer
- ideally the patient should be accompanied by her partner during the embryo transfer procedure, or by a friend if this is not possible
- occasionally drugs may be required which will prevent the patient being able to drive - the clinical team will advise on this beforehand

See the MFS infosheet 'Embryo Transfer and the Two Week Wait'.

Frozen Embryo Transfer (FET)

For how long may embryos be stored?

Legislation determines the time that MFS, with patients' consent, is allowed to store embryos. Currently embryos may be stored initially for 10 years. Under exceptional circumstances, storage may be extended up to 55 years from the date of freezing (to be reviewed every 10 years), if the patient, partner or someone to whom the embryos are allocated is prematurely infertile or likely to become prematurely infertile.

What happens to stored embryos when treatment is complete?

Sometimes making a decision can be difficult and so MFS staff will offer much more information on each alternative so patients are fully informed before they give written notification of their choice. Counselling is also available. Patients have three choices for their stored embryos:

- donate the embryos to another couple undergoing fertility treatment
- donate the embryos to a research project
- withdraw consent so the embryos are removed from storage and allowed to perish

Success rates

Pregnancy rates using frozen embryos compare well with pregnancy rates from fresh embryo transfers. For the most current results at MFS visit: midlandfertility.com/success-rates

What is included in the cost of FET?

- monitoring scans before the embryo transfer
- thawing and culture of embryos in the lab
- embryo transfer
- pregnancy test and scan and/or follow-up to review the treatment cycle

What is not included in the cost of FET?

- follow-up consultation (as appropriate)
- repeat infection screening (as appropriate)
- IVF or ICSI treatment including egg collection
- fertility drugs
- the HFEA levy for the transfer of embryos
- electronic witnessing fee

How long does treatment take?

An average of four to six weeks, depending on whether it is a natural cycle or HRT FET, from the beginning of the treatment cycle to pregnancy test.

Costs

Please refer to the current List of Charges in either the Patient Finance Information leaflet or via midlandfertility.com/fees.

Further Information

Please visit midlandfertility.com/treatments or read the following MFS infosheets:

- Embryo Freezing
- Embryo Transfer and eSET Policy
- Embryo Transfer and the Two Week Wait (downloadable from midlandfertility.com or in hardcopy from MFS).