

# Frozen Embryo Transfer (FET)

## Transfer of Frozen Embryos/Blastocysts

Many of you will be aware that it has been possible for some time to freeze (cryopreserve) embryos/blastocysts that are not used during your first treatment attempt. These embryos/blastocysts can be thawed at a later date and transferred back to the womb after suitable preparation of the lining of the womb. Transfer of these frozen/thawed embryos/blastocysts is not as successful at establishing pregnancies as the transfer of embryos which have not been frozen, but they do represent a second or even third chance to achieve a pregnancy without having to undergo the full course of injections to stimulate the ovaries and the egg recovery procedure.

If there are a sufficient number of fertilised eggs from your fresh cycle it is usually possible to freeze the spare embryos/blastocysts for future use.

They can be frozen at three different stages of development:

- At 16 hours of age before the fertilised egg has actually divided (pro-nucleate stage)
- When the embryos actually divide into between 2 to 4 cells (early cleavage stage).
- At five days after fertilisation (blastocysts) but only a small amount of embryos survive to this stage.

Most embryos are frozen at the early cleavage or blastocyst stage. In this situation all embryos are left in culture and the best 2 embryos are transferred into you. If there are 2 or more Grade 1 embryos remaining following the transfer, these will be cryopreserved for future use.

Pro-nucleate stage freezing mainly occurs if ovarian hyper-stimulation occurs and it is unwise to transfer fresh embryos into your womb. At present approximately 31% of women have sufficient embryos to allow freezing.

We can arrange for transfer of the frozen embryos fairly soon after your initial "fresh" treatment. There is no evidence that embryos are actually affected by the length of time they are frozen. We understand that any damage that occurs to the embryos is caused during the course of cooling the embryos to freezing point later and when warming to body temperature.

Following your initial attempt where the fresh embryos are transferred you will be asked to attend the fertility clinic either at Calderdale Royal Hospital or an outreach clinic, to discuss further options. In general we prefer it if you have all your frozen embryos transferred prior to contemplating any further fresh IVF cycles.

## Instructions for Frozen Embryo Transfer

For the transfer of frozen embryos to be successful, the embryos must be put back into the womb when the womb lining (endometrium) is ready to receive the embryos. There are two ways of achieving this, either in a natural cycle or during an artificial cycle.

Natural cycle embryo replacement is relatively simple and requires monitoring. Your endometrial development, measured by ultrasound scan, combined with ovulation predictor kits (which tests hormones released into your urine), tells us when you are about to release an egg. With a combination of these tests we can tell when the lining of the womb is ready to receive the embryo.

Replacing the embryos in natural cycles, however, is not as successful as replacing the embryos in an artificial cycle. We, therefore, usually advise frozen embryo replacements during an artificial cycle in which your natural hormones are suppressed with an injection administered on the 21st day of your cycle. This injection lasts approximately one month. Once your own hormones are suppressed we ask you to commence oestrogen tablets to make the womb lining thicken, and later in the cycle progesterone (Cyclogest) pessaries or Gestone injections to make the womb lining ready to receive the embryos.

**How do we start?** We do not have a waiting list for frozen embryo transfer cycles. When you are ready for your treatment you must phone **on 01422-224478** within a week of commencing your menstrual cycle. We will ask you and your husband/partner to attend on or around the 21st day of your cycle, to sign consent forms, make payment if appropriate, collect your medication from pharmacy and to have the injection administered following a scan.

**We as a small workforce cannot guarantee that the same person will carry out all of your scans but if you would like to be seen by the same person, please ask if they are available.**

You should expect to have a further period about 7 days after the injection has been administered. You will be asked to come back for a scan 14 days after your injection to check that your ovaries are inactive, and to check that the lining of the womb is thin. Occasionally we find that you will not have had a period and the womb lining is still thick, in which case we will see you again a few days later.

**The preparation:** If the injection has worked, you will start you oestrogen tablets (usually estradiol). You will be advised of the number of tablets you need to take, by the nursing staff at that time. You will return for a scan 8-10 days after the commencement

of the tablet treatment. The scan will indicate whether the womb lining is thickening sufficiently. Depending on these results, we may have to adjust the amount of tablets or even start you on skin patches to ensure the correct development of the womb lining.

It may therefore be necessary to arrange further scans and blood tests as necessary until the womb lining is ready to receive the embryos. Once your womb lining is the appropriate thickness the nurse will make arrangements with the laboratory to contact you with instructions for starting the Cyclogest Pessaries and Fragmin injections (if using).

You will have discussed and decided on the appropriate amount of embryos to thaw at your first visit with the nursing staff. The embryologists will then select out the best embryos that have survived the freezing and thawing process and transfer the best 1 or 2 embryos, depending on your circumstances.

## **Advising Patients about Single Embryo Transfer (SET)**

A single healthy baby should be the goal of all fertility treatment and we know that a multiple pregnancy is the biggest risk to the health of babies conceived by IVF. Yet many patients still see a twin pregnancy as an ideal outcome. How can we persuade you that this is not the case?

A recent patient questionnaire from the Human Fertilisation and Embryology Authority (HFEA) showed that the majority of patients who had opted for Single Embryo Transfer (SET) had done so because that was what they had been advised to do by their clinic, and they had trusted the clinic's opinion on the issue. Statistics about the potential risks had not been the major deciding factor.

### **Answering some common concerns**

There has been some misunderstanding about the move towards SET and what is involved. Patients may be resistant to the idea, especially those who have concerns about the financial implications and the impact on success rates. You may find that you need to have answers to some of the common questions that can arise.

### **Isn't the aim to get everyone to have one embryo transferred?**

SET is not right for everyone and the

decision should always be taken on an individual basis. Every clinic has a strategy in place to reduce the risk of a multiple pregnancy. A number of relevant factors may be considered such as your age and the quality of your embryos.

**I've heard SET is really just about saving money on NHS care for premature babies?**

It is not about saving money. It is about saving lives. Babies are only in specialist neonatal intensive care units because they have serious complications. Half of all twins are born prematurely and are of low birth weight, which means they are more likely to need specialist medical help. SET is about increasing the numbers of healthy IVF babies.

**Why are IVF patients being penalised by having to have single embryo transfer?**

In the past IVF patients have sometimes had to take unnecessary risks just because they had problems getting pregnant. If you are offered SET you are not being penalised – you are being given the chance to avoid the major risk associated with IVF; a multiple pregnancy.

**I'm fit and healthy, and therefore willing to take the risk of having twins**

Being fit and healthy does not mean that you will avoid complications

with a multiple pregnancy, most of which are related to prematurity. No one wants to risk damage to their own child if it can be avoided.

**I know lots of twins who are fine and I think the risks are being exaggerated**

Many twins are fine, but it is not always appreciated that many others are not. Naturally there is only a 1-2% chance of having a twin pregnancy, but after IVF this rises to 25%. This means that the risks of problem pregnancies, miscarriage, disability and of death are unacceptably high too. It is quite possible to reduce multiple birth rates while giving a similar chance of success if patients are selected carefully.

**I can't afford to pay for lots of treatment. Surely if I have two embryos put back I will double my chances of getting pregnant?**

Putting two embryos back does not double the chance of getting pregnant, but it does increase the risk of a multiple pregnancy. If clinics choose patients carefully, success rates can be maintained by carrying out SET and freezing any remaining embryos to transfer later.

**It is my right to choose how many embryos to put back. You can't decide that on my behalf.**

As a medical professional I am responsible for your health and that of any future baby. I cannot

risk causing unnecessary damage to your child or to you by putting back two embryos if you have a high chance of having a multiple pregnancy.

### **I'd rather have twins than no baby at all**

If you were going to get pregnant with twins, you would have got pregnant with a SET.

More detailed information about the risks to mothers and babies of a multiple pregnancy can be found at: [www.multiplebirths.org.uk](http://www.multiplebirths.org.uk) and [www.oneatatime.org.uk](http://www.oneatatime.org.uk)

This fact sheet is produced by Fertility Network UK, in conjunction with One at a Time and the Multiple Births Foundation. The Department of Health has provided funding for this project.

### **The embryo transfer and after:**

The transfer itself is identical to previous embryo transfers you will have had. You should continue your oestrogen tablets and progesterone pessaries/injections on exactly the same dose as before until the results of your pregnancy test come through. We will ask you to ring Yorkshire Fertility following your embryo transfer to arrange your pregnancy blood test. You will be able to find out the result by contacting the Yorkshire Fertility on 01422-224478 at midday on the same day.

If the test is negative, you will be advised to discontinue all your tablets and pessaries/injections, and you will be given an appointment to see one of our doctors in the clinic 2 to 4 weeks later. If the result is positive you must continue on your medication for a further 10 weeks. This is to provide the pregnancy with the support it needs until it becomes self-sufficient. We will also organise further blood tests/scans to check on the progress of your pregnancy.

### **Pre Conceptual Advice**

1. **Smoking:** There is now a good deal of evidence that suggests that smoking is harmful both to male and female fertility. Put into real terms, if a woman smokes 20 cigarettes per day she reduces her natural fertility by over 20%. Smoking is also harmful to the developing fetus both in the short term during the course of the pregnancy, and recent evidence would suggest in the long-term as well with an increased risk of heart attacks and strokes in mid-life.

Finally there is good evidence that a smoker in the family increases the risk of a cot-death. Therefore it is advisable to stop smoking prior to starting your IVF treatment.

2. **Alcohol:** Alcohol in excess can again cause problems with both male and female fertility. A modest alcohol intake is reasonable

(less than 6 units per week for women and 12 units per week for men). Again, high alcohol intake in pregnancy can result in fetal abnormality. Ideally stop drinking alcohol.

**3. Prevention of spina bifida and other neural tube defects:** There is evidence that a small dose of folic acid (400mcg) is helpful in lowering the incidence of fetal abnormalities such as spina bifida. All women going through the IVF programme should consider taking this small daily dose of folic acid before commencing treatment. Please note that any women on antiepilepsy drugs should take an increased dose of 5mg daily available on prescription.

**4. Vitamin D:** A significant proportion of the UK population have low levels of vitamin D. This has resulted in a rising number of reported cases of Rickets in children and osteomalacia in adults. Those most at risk are pregnant and breast feeding women.

Our body creates most of our vitamin D from modest exposure to UVB sunlight. People living in the UK do not get adequate exposure. It can also be found in foods such as oily fish, eggs and meat. Some manufacturers add it to cereals, soya products and low fat spreads, however it is difficult to obtain enough this way.

It is therefore recommended that you take 10 microgram/day of vitamin D whilst trying to conceive and throughout pregnancy and breast feeding.

**Our dietician recommends the use of Healthy start vitamins as this contains vitamin C and D as well as folic acid. These can be obtained from your GP or your local pharmacist.**

**5. Cervical smears:** Regular cervical smears, lower the incidence of cervical cancer. In the United Kingdom women routinely have smears performed every 3 years.

## **Change of Details**

It is essential that you notify the unit of any change of address, telephone number/s or G.P. prior to or during your treatment. This will ensure that any communication to you or your G.P. will be directed to the most appropriate place.

## Support Services

Some couples find the thought of IVF quite scary and feel that they would like help to cope with this very stressful time in their lives. We have several ways that we try to help with this:

- An independent fertility counsellor (see details)
- Our fertility nurses at Yorkshire Fertility

**Advice and support during treatment** should be directed to Yorkshire **Fertility** on **01422-224478**. For urgent problems between 4pm and midnight Monday to Friday, Weekend and bank holidays 8am to midnight you can contact switchboard on **01422 357171** and ask for the Gynaecology ward. After midnight if you have made an injection error contact the gynaecology ward on **01422 224415**.

**Complaints** - If you have any complaints, please put them in writing, addressed to Mr M A DeBono or Clinical Lead Nurse Helen Marvell. We are always happy to receive any comments or suggestions that could help improve our clinic.

You can also visit our website on **[www.fertility.cht.nhs.uk](http://www.fertility.cht.nhs.uk)**

## The HFEA

The Human Fertilisation & Embryology Authority exists to regulate any clinic which carries out assisted conception procedures involving the removal of eggs and sperm from the body and the transfer of any resulting embryos. It is there to make sure that patients' best interests are looked after and that the clinic maintains a high standard of practice at all times. Every IVF clinic is registered with the HFEA. In Halifax, we form part of the Leeds Reproductive Medicine Unit registration (registration number is 0314) and CARE at Manchester (registration number is 0185).

The HFEA produce a range of leaflets about treatments involving eggs and sperm as well as a detailed patient guide that contains important information about all clinics in the United Kingdom. You will be provided with many of these leaflets in our clinics. If you wish to contact the HFEA, you can telephone them on 020 7291 8200 or you can access their website on [www.hfea.gov.uk](http://www.hfea.gov.uk)

**Welfare of the child:** We have a legal requirement to consider the welfare of any child born as a result of infertility treatment. In making this assessment we consider both of your medical histories, your age and an independent assessment from your G.P. Any concerns will be

discussed with you before treatment is offered. You will be asked to sign a declaration concerning the welfare of the future child.

## **Counselling**

### **What is counselling?**

Counselling is a confidential and sensitive relationship where the Yorkshire Fertility Counsellor meets with individuals and couples to discuss the personal, psychological or social effects of their treatment. The counsellor is impartial and wishes only to offer you the psychological support you deserve.

### **What is counselling in the context of my treatment?**

It is recognised that fertility treatment can cause a great deal of stress and anxiety. This often affects both partners and can impact on ones ability to cope with domestic, social and working life. It often affects both couples and that is why it is often most appropriate for couples to be seen together. Sometimes very difficult decisions have to be made and difficult questions asked.

People often feel a range of confusing or unusual emotions such as depression, anxiety, anger or hostility, guilt, tearful, feelings of grief and loss, problems with sleeping or eating and difficulties in coping in social and work situations.

The role of the counsellor in this context then is to offer you emotional

and psychological support at a time when you need it, to help you answer difficult questions for yourself.

The counselling service aims to be sensitive and caring and you are entitled to take advantage of it. Your psychological well-being is therefore of primary concern to the counsellor. It is offered freely and you should not feel hesitant to ask for it even if it is not offered.

### **When can I ask for counselling?**

You can request to see the counsellor any time you like - before, during or after your treatment. You will be offered counselling by staff at the Unit and they can make arrangements for you.

### **Does it cost me anything?**

No. The service is provided by Yorkshire Fertility.

### **Will I/we be seen as weak or a nuisance if I/we ask for counselling?**

Absolutely not. If this were thought to be so, the counselling service would not be available for you. We all recognise the psychological stress that treatment causes and difficult decisions that need to be made.

### **What might I/we hope to gain from seeing the counsellor?**

This is difficult to say as different people benefit in different ways. Counsellors through attentive listening and a sense of empathy help

couples to clarify and understand the circumstances that affect their lives and relationships. They are able to help you to make choices and decisions and to give you the support you need throughout your treatment. They also demonstrate a capacity for offering support within a non-judgmental and respectful relationship.

**But I never talk about personal things - how will counselling help?**

It is the responsibility of the counsellor to assist you in a sensitive and caring way to talk. You will not be pushed to discuss anything you do not wish to. The counsellor is there simply to offer the opportunity in an unhurried and relaxed, safe environment to make it comfortable and safe for you to talk.

**Do I have to see the counsellor?**

No, but if you are unsure if it will help, please contact the counsellor and ask.

**How long does counselling take?**

Each session usually lasts up to 1 hour. In many circumstances one or two sessions may be enough to support you over the immediate crisis. If, however, you or the counsellor feel further time is needed this will be discussed and arranged at the time.

**How do I contact the counsellor?**

An appointment can be made to see the counsellors by telephoning Yorkshire Fertility on 01422 224478.

## **Useful Telephone Numbers**

**Mr DeBono's Secretary:**

01422 224257

**Yorkshire Fertility:**

01422 224478

**Calderdale Royal Hospital**

Switchboard: 01422 357171

**Reproductive Medicine**

**Unit Leeds:**

0113 206 3111

**CARE, Manchester:**

0161 249 3040

Further information may be obtained from our website visit:

**[www.yorkshirefertility.co.uk](http://www.yorkshirefertility.co.uk)**

**If you would like this information in another format or language contact us below.**

### **Czech**

Potřebujete-li tyto informace v jiném formátu nebo jazyce, obraťte se prosím na výše uvedené oddělení

### **Hungarian**

Amennyiben ezt az információt más formátumban vagy nyelven szeretné megkapni, vegye fel a kapcsolatot fenti részlegünkkel.

### **Polish**

Jeżeli są Państwo zainteresowani otrzymaniem tych informacji w innym formacie lub wersji językowej, prosimy skontaktować się z nami, korzystając z ww. danych kontaktowych

### **Punjabi**

ਰ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਪ੍ਰਾਚੂਪ ਜਾਂ ਭਾਸ਼ਾ ਵਿੱਚ ਲੈਣਾ ਚਾਹੁੰਦੇ ਹੋ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਉਪਰੋਕਤ ਵਿਭਾਗ ਵਿੱਚ ਸਾਡੇ ਨਾਲ ਸੰਪਰਕ ਕਰੋ।

### **Urdu**

اگر آپ کو یہ معلومات کسی اور فارمیٹ یا زبان میں درکار ہوں، تو برائے مہربانی مندرجہ بالا شعبے میں ہم سے رابطہ کریں۔

If you have any comments about this leaflet or the service you have received you can contact:

Clinical Lead Nurse  
Yorkshire Fertility  
Calderdale Royal Hospital  
Salterhebble  
HALIFAX  
HX3 0PW

Telephone (01422) 224478  
[www.yorkshirefertility.co.uk](http://www.yorkshirefertility.co.uk)