

If you are undergoing IVF and have had one or more embryos frozen, you may wish to use them in a future cycle. This fact sheet explains what is involved in the frozen embryo transfer process.

## THE FACTS ABOUT:

# Frozen embryo transfer

## What is a frozen embryo transfer cycle?

A frozen embryo transfer (FET) cycle means thawing one or more embryos (frozen during a previous treatment cycle) and transferring that embryo (or embryos) to the uterus in order to try to establish a pregnancy. The process is a routine procedure at Life Fertility Clinic.

## When is a frozen embryo cycle recommended?

When ovaries are stimulated in a typical IVF or ICSI cycle, they produce multiple eggs for insemination and this often leads to a number of healthy embryos being created. As only one (or two) will be transferred to the uterus immediately, the rest can be frozen to use in another IVF cycle if the first transfer does not result in a pregnancy, or at a later time to create a sibling.

Occasionally a woman having IVF treatment will be advised to freeze all her embryos and not to transfer any immediately if the lining of the uterus has not developed to a suitable stage or if she is at risk of developing ovarian hyper-stimulation syndrome (OHSS).

It is also increasingly common for the fertility specialist to recommend that we freeze all of a patient's embryos because the more natural environment in the uterus during a later cycle may have a better chance of establishing a pregnancy.

Freezing embryos is also a potential avenue for a woman who wants to postpone pregnancy until her late 30s or early 40s but who understands she may not have suitable eggs of her own by then.

## What are the success rates of frozen embryo transfer?

The pregnancy success rate depends on a number of factors, including the woman's age.

Some embryos (or possibly all embryos) will not survive the freezing and thawing process if cells are damaged. Frozen

embryo survival rates are more than 90% if embryos are frozen by 'vitrification' at the blastocyst stage (5-6 days after fertilisation). If they are frozen at the earlier stages by 'slow freezing', approximately 80% survive the freezing and thawing process.

If an embryo vitrified at the blastocyst stage is thawed and transferred, it has approximately the same success rate as a fresh embryo.

There is no evidence that frozen and thawed embryos result in a greater number of miscarriages or abnormalities.

## What does a frozen embryo transfer cycle involve?

When you are ready to begin a FET cycle, contact your IVF nurse coordinator. She will review your fertility specialist's instructions and will help you complete all of the paperwork for the cycle (e.g. consent and Medicare forms).

You cannot go ahead with any part of the FET cycle until you and your partner (if you have a partner who was part of the original treatment) have signed and returned the appropriate consent forms.

Before a frozen embryo can be transferred into your uterus, the lining of the uterus (the endometrium) must be prepared to the right stage in either a 'natural cycle' or a 'hormone replacement therapy cycle' as explained below.

### Natural cycle

In a natural FET cycle, we allow the endometrium to thicken naturally as part of your normal cycle. We monitor the cycle by checking the developing egg follicle on the ovary and the thickness of the endometrium by ultrasound and, once they have reached an appropriate size/thickness, we trigger ovulation.

The embryo transfer then takes place approximately a week after this. The exact timing will depend on your individual treatment plan and at what stage of development your embryos were frozen. Progesterone medication, either as an injection or pessaries, is often given during the second half of the cycle to help support the endometrium.



### **Hormone replacement therapy (HRT) cycle**

An HRT cycle is often used to control the cycle particularly in women who don't have a regular cycle. We use additional oestrogen and progesterone medications to develop the endometrium to the right stage.

You will take oestrogen medications throughout the cycle and progesterone medications during the second part of the cycle. We monitor development of the endometrium by ultrasound to check when to introduce the progesterone. Your embryos are normally implanted in the week or so after starting progesterone, but this can vary depending on individual circumstances and the stage at which your embryos were frozen.

### **When will my embryos be thawed?**

The laboratory will thaw your embryos so that the stage of embryo development corresponds to the right stage of your menstrual cycle. Timing also depends at what stage the embryos were frozen. At Life Fertility Clinic, we usually freeze embryos at the blastocyst stage and then thaw them in the morning on the day of your embryo transfer.

### **How are embryos transferred?**

We use a fine tube (a catheter) to pass the embryo through the cervix and into the uterus. A small amount of the culture medium is also placed in the uterus with the embryo. This technique usually doesn't need sedation and most women only report mild discomfort.

### **What happens after the embryo transfer?**

Before you go home after the transfer, your nurse coordinator will go through the instructions from your fertility specialist, including your medications and any lifestyle considerations.

We order a pregnancy blood test for 11 to 14 days after your embryo transfer. The blood test measures the hormone human Chorionic Gonadotropin (hCG), which is produced by the pregnancy. Please wait until the advised date to have your test as hormones used during the cycle can lead to false readings if you test too soon.

Whichever type of FET cycle you are having, it is very important to continue the prescribed medications until you have received the results of your pregnancy test.

Some women experience bleeding or spotting before their pregnancy test. This is not necessarily a period and it is very important that you continue to take any prescribed medications until you have spoken to your Nurse Coordinator or fertility specialist.

### **Contact Life Fertility Clinic**

The friendly and professional team at Life Fertility Clinic are happy to answer any other questions you may have about frozen embryo transfers.