Egg Freezing

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Egg freezing is a method of storing a woman’s unfertilised eggs to allow her to try to conceive at a later date, when natural conception would be unlikely. It may be seen as a way of preserving the possibility of fertility for women who are not in a position to become pregnant straight away, or whose fertility is at risk.

Recent work by Australian and international scientists has resulted in improved techniques for egg freezing and thawing and over 6,000 babies have been born worldwide following egg freezing.

Frozen eggs may be stored for many years without significant deterioration. When the woman is ready to use her eggs, they are warmed, and then fertilised with sperm. The aim is for a healthy fertilised egg to develop into an embryo, which can then be transferred to the woman’s uterus giving a chance of pregnancy.
Ovarian function, fertility and age

At the start of a woman’s reproductive years, the ovaries contain many thousands of immature eggs.

Usually, one egg grows and matures each month, leading to ovulation and possibility of pregnancy. At the same time, each month many eggs will naturally start to develop but then ‘die off’, so the store of eggs gets smaller as women age. As a woman grows older, the number of eggs available to go through the maturing process becomes less, until by the age of 50 or so no eggs remain (menopause).

A woman’s most fertile years are when she is in her 20’s and early 30’s, when the ovaries still contain a large number of healthy eggs. For the 10 – 15 years prior to menopause, despite a woman having regular ovulatory cycles (monthly periods), egg quality and hence fertility deteriorates.

Preparation for egg freezing

To obtain eggs for freezing, a woman will usually have hormonal stimulation for 10 – 12 days, enabling a number of eggs (usually 6 – 15) to mature. There are a variety of stimulation techniques, and you will decide which is best for you in discussion with your fertility specialist. The stimulation medications are self administered by a daily injection using a pen device with a small needle. Patients are taught how to do this in an instructive introductory consultation. The injections may make the woman feel a little bloated but there are no frequent significant side effects and she can carry out all normal activities throughout the period of stimulation.

Procedure to collect the eggs

The eggs are collected from the ovaries using an ultrasound guided probe inserted into the vagina. A needle runs inside the probe and can be gently passed through the vaginal wall into each ovary in turn, allowing the doctor to aspirate eggs from the ovary. The procedure is usually carried out under light general anaesthetic or with sedation.

Patients can go home 1 – 2 hours after the procedure and are advised not to drive and to rest for the remainder of the day.
Egg freezing

Once in the laboratory, the eggs undergo a freezing procedure called vitrification. This involves rapidly freezing eggs and extracting fluid from the eggs to prevent potentially damaging ice crystal formation. Once vitrified, eggs may be stored for many years.

Success rates

Vitrification for egg freezing is a relatively new procedure and it is too early to be able to give precise figures for the chance of pregnancy after freezing, future thawing and fertilisation. The chance of success is largely determined by the woman’s age at the time of freezing.

Currently we would expect that:

- For a woman aged 35 or under, one stimulated cycle would result in the collection of 10 – 12 eggs of which 7-9 would be suitable for vitrification & storage
- Approximately 80-90% of eggs would survive warming in the future
- Approximately 50 – 80% of surviving eggs would fertilise
- Approximately 80-90% of fertilised eggs would develop into embryos
- A single embryo would have a 20% -35% chance of developing into a pregnancy.

Things to consider before egg freezing

Egg freezing is a good option for a young woman who is facing chemotherapy or other treatment that may harm her eggs. The process takes about two weeks and gives the chance of having a family later after successful treatment.

Healthy women who are considering freezing their eggs because they are not yet in a position to have a family should think carefully before deciding to go ahead, as there is no certainty that the frozen-thawed eggs will lead to a pregnancy later in life.
Other factors, especially the woman’s age when her eggs are frozen, have an important effect on the chance of pregnancy: the younger the woman, the better the chance. Success rates are lower for women over 35 and egg freezing in women over the age of 38 is unlikely to lead to a pregnancy.

Egg freezing is a reasonable option for younger women with low AMH levels. They would be expected to have good egg quality because of their age, and may be advised to freeze eggs as they may run out of their store of eggs earlier than usual.

Egg freezing cannot ever be guaranteed to lead to pregnancy and birth of a healthy baby later in life. Women who freeze their eggs may not know the outcome for many years and may lose the opportunity to have a baby naturally.

This leads to the question of when a woman should plan to use her frozen eggs. It may not be wise to postpone starting a family until the woman is in her late forties, with the health and social consequences that this may bring. Conversely, if the woman plans to use her stored eggs in her late thirties then she may still have good natural fertility, making the storage process unnecessary.

What are the risks?

Serious side-effects of the stimulation process are very rare. Possible problems include bloating and nausea. Occasionally only a few or no eggs may be collected, particularly for women over 36. The egg collection procedure may be complicated by bleeding or pelvic infection, although this is uncommon.

After storage in the laboratory, the eggs may not survive the thawing procedure, may not fertilise or develop into embryos, or may not result in pregnancy after embryo transfer.

A woman contemplating egg freezing should consider other options which may be available to her, such as donor insemination (for more immediate rather than delayed pregnancy) or the possible future use of donor eggs if her own ovarian function is likely to be lost.

The cost of egg freezing

In Australia, Medicare and other government subsidies are only payable for fertility treatment when there is a medical indication. Most women who freeze their eggs are not infertile and hence do not receive a Medicare rebate. This can make the out-of-pocket costs much higher. For an explanation of costs please call us on 6224 1808.

How to access our egg freezing program

You can be referred directly to a TasIVF fertility specialist by your local doctor or another medical specialist. The fertility specialist will take a medical history, arrange any necessary investigations including blood tests and ultrasound assessment of the ovaries, and offer a counselling referral. If you choose to have egg freezing, the fertility specialist will then manage your care through the stimulation and egg collection procedure.