

Egg Freezing

Egg freezing is a method of storing a woman's unfertilised eggs, with a view to them being used in the future if required. It may be seen as a way of preserving the potential for fertility in women who are not in a position to become pregnant currently or whose fertility is at risk.

Medical egg freezing relates to women whose fertility is affected or likely to be affected by conditions such as tumours of the ovary, chemotherapy, radiotherapy and/or other medical indications.

Social egg freezing generally relates to women who wish to have a child or children in the future, but who do not have the opportunity (due to a lack of a committed partner or other lifestyle issues) to do so during their most fertile years. It may be seen as a form of insurance against future infertility.

While embryo and sperm freezing have been long recognised infertility treatments, with many babies born as result, egg freezing is now also acknowledged as a potentially helpful option with excellent survival rates and similar outcomes.

Recent work by Australian and international scientists has resulted in improved techniques for egg freezing and thawing and there have now been over 5000 babies born (worldwide) after egg freezing, with no increased risk of problems compared with standard IVF

Why should I consider egg freezing?

Age-related infertility in women is one of the most common issues presented to fertility specialists each day when trying to help patients become pregnant.

At Melbourne IVF, we encourage all initiatives which can educate and improve social support so that women can optimise their chances of having a family before the natural decline of ovarian function. However, we recognise that for some women, child-bearing has been or will be unavoidably delayed.

Our scientists have been at the forefront of infertility-related research and scientific work since the development of IVF treatment options. Indeed, our IVFA oocyte (egg) scientist team has published widely in the medical literature with regard to freezing and thawing techniques. We have many successful births from our egg freezing program.

With these advancements in scientific techniques, we

are able to offer egg freezing to enable more patients to explore all their reproductive options.

Costs

The cost for an egg freezing cycle varies depending on the patient's individual circumstances.

If you are required to freeze eggs for specific medical reasons Medicare will provide a rebate on the costs. The out-of-pocket costs are much higher for social egg freezing.

For an explanation of costs please visit mivf.com.au.

How to access our egg freezing program

You may be referred by your local doctor, medical specialist, or a counsellor, directly to a fertility specialist associated with IVFA.

The fertility specialist will take a medical history, arrange any necessary investigations including blood tests and ultrasound assessment of the ovaries, explain about the process and its implications, inform you about success rates for your specific situation, and arrange a counselling referral if appropriate. If you choose to have egg freezing, the fertility specialist will then manage your care through the stimulation and egg collection procedure.

For further information you can contact our community liaison administrator on 1800 111 483 about organising an appointment with a MIVF fertility specialist.

Ovarian function, fertility and age

During a woman's reproductive years, the ovary contains hundreds of thousands of immature eggs.

Usually, over the course of a few weeks, multiple immature eggs start to develop in a wave and then most stop growing, while one ripe ("mature") egg continues to develop and is released each cycle. As a woman gets 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.



A woman's most fertile years are when she is aged in her 20s and early 30s, 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), the ovarian function deteriorates. This is especially so in women in their forties who are therefore unlikely to produce a healthy pregnancy.

Risks of egg freezing

Egg freezing is not a high-risk procedure, but as with any medical treatment, there are potential complications. These relate to the hormonal stimulation and the egg collection procedure.

Administration of any hormones used for stimulation may slightly increase the risk of a thrombosis (clot). If you have a strong family history of clots or a past history, then you need to inform your doctor of this.

Possible side effects of the stimulation include under- and over-stimulation of the ovaries, and rarely, failure to obtain eggs. Egg pick up may be complicated by pelvic infections or other pelvic trauma, although this is very uncommon.

Further information regarding treatment-related complications is provided in the MIVF consent form for operative procedures

Other risks of egg freezing relate to the possible failure of the treatment: 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 also consider other options which may be available to her both now and in the future. These include donor insemination or the possible future use of donor eggs if her own ovarian function is likely to be lost.

It is important to understand that there is an increased risk of pregnancy complications such as high blood pressure and gestational diabetes, which occur in older women, unrelated to the age of the eggs, but related to the age of the woman carrying the pregnancy.

Technique: hormonal stimulation

To obtain eggs for freezing, a woman will usually undergo hormonal stimulation over 10–12 days enabling a group of eggs (usually 10–15) to mature.

There are a variety of stimulation techniques for this, and your doctor will decide, in discussion with you, which is the most appropriate for your treatment. The stimulation medications are usually self-administered by an injection

using a tiny needle under the skin, and are very easy to administer. Patients are taught how to do this in an instructive, introductory session. The injections may make the woman feel a little bloated but she can carry out all normal activities up until the day of the egg retrieval.

Procedure to remove the eggs

The eggs are removed from the ovaries in a minor procedure performed under sedation (patients are asleep for the procedure) which takes about 15 to 20 minutes. This procedure is performed by the fertility specialist using an ultrasound guided probe. Attached to the ultrasound probe is a needle guide. The fine needle passes through the vaginal wall into the ovary and draws the fluid (and eggs) from the ovary.

Patients can go home with a companion about one hour after the procedure and are advised to rest quietly for the rest of the day.

Egg freezing procedure

The eggs undergo a freezing procedure in the IVF laboratory, using the latest scientific technology, called vitrification (rapid glass-like cryopreservation). Eggs may be stored for many years without deterioration.

When the woman is ready to use her eggs, they are thawed, and then fertilised with sperm, developing into embryos which are then grown for several more days. A blastocyst (matured embryo) can then be transferred to the woman's uterus, with a subsequent chance of pregnancy.

Currently we would expect that:

- A stimulated cycle would result in the collection of 10–15 eggs but this is extremely variable and depends on many factors including a woman's age, general health, ovarian reserve and current ovarian function.
- Approximately 80–90% of eggs would survive thawing
- Approximately 50–80% of surviving eggs would fertilise
- Approximately 10–40% of fertilized eggs would develop into good quality embryos depending on the age of the woman and her inherent egg quality
- A single embryo would have a 30–40% chance of developing into a clinical pregnancy for women under 38 years, with the same chance of miscarriage as any other woman of the same age. However for every 10 eggs collected, as with fresh eggs, only one to three embryos would be expected to develop.