GP INFORMATION SHEET

IVF

IVF, also known as In Vitro Fertilisation, is a procedure that can help couples and individuals who are experiencing fertility issues achieve pregnancy and start or expand their families.

How does IVF treatment work?

IVF helps overcome fertility issues by fertilising eggs outside the body. It is commonly used for couples, single women, and same-sex couples seeking parenthood.

While pregnancy normally results from sperm fertilising an egg after intercourse, various factors can prevent this. IVF bypasses many of these issues by fertilising the egg in a lab dish ('in vitro' means 'in glass'), to make an embryo and allowing the first few days of embryo development to occur in an optimised lab environment. The newly-formed embryo is transferred back into the woman's uterus where it will develop for the remainder of the pregnancy. Excess embryos formed during a stimulation cycle can be snap frozen ('vitrified') for future use. Many cycles are now planned freeze all cycles to mitigate risk of ovarian hyperstimulation, to facilitate PGT-A or PGT-M, or when embryo banking is being undertaken for fertility preservation.

Sometimes, it can just be hard to fall pregnant without assistance due to age or other factors. In this case IVF works simply by increasing the chances of falling pregnant via the power of "controlled ovarian hyperstimulation". In a natural cycle only 1 egg is produced (occasionally 2), however in an IVF cycle we aim to collect as many eggs as is safely possible (while aiming to avoid over stimulation). This provides more than one opportunity to get everything right and significantly increases the chances of finding the egg and sperm combination that is capable of producing a viable embryo.

Equally, the success of IVF is limited by the number of eggs able to be collected, and in patients with low ovarian reserve, though still offering more chance of pregnancy than a natural cycle, IVF will be less efficient.

The IVF Process

1. **Growing follicles**
   The first step in IVF involves stimulating the ovaries with hormone injections for 8-14 days to produce multiple follicles (containing oocytes). During this time patients will attend for 1-3 ultrasound appointments for cycle monitoring, some clinics (Newlife included) will also monitor serum hormone levels during the stimulation phase
2. **Trigger**
   When the follicles are ready patients are the ready for the "trigger". This is an injection of one or more medications at a specific time. This matures the eggs prior to collection.
3. **Sperm preparation**
   Sperm is collected from the male partner on the day of egg retrieval, or previously frozen sperm is thawed for use in the IVF process.
4. **Egg collection**
   Usually 36 hours after the trigger, the eggs are then surgically collected under sedation in a 20–30-minute procedure, typically yielding 8-12 eggs
5. **Insemination**
   Following egg collection and sperm preparation, to facilitate fertilisation, each mature egg is combined with sperm 'in vitro' in a laboratory dish or alternatively a single sperm is selected and injected into each of the eggs by a technique called ICSI (Intracytoplasmic Sperm Injection). Fertilisation results are then known the next day.

6. Embryo Culture

Fertilised embryos are grown in an incubator, usually for 5 days until they're ready for transfer to the uterus or for freezing, though not all embryos survive this stage.

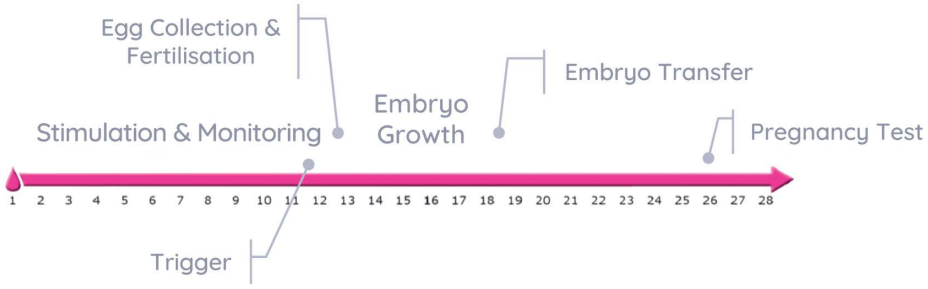
7. Embryo transfer

Embryo transfer is a procedure, usually performed whilst awake, where a single embryo is placed into the uterus through the cervix via a fine flexible tube, using ultrasound guidance. A speculum is used to view the cervix (similar to a clinician collected cervical screening test).

8. Blood test

The first pregnancy test is done approximately 11 days after the embryo transfer.

Steps in an IVF Cycle



When is IVF treatment not recommended?

IVF success depends on many things, however the quality and quantity of the eggs (and sperm) available to make the embryos are crucial. Success decreases progressively as patients get older and their ovarian reserve diminishes.

For this reason, patents who are above 46 years old or have undergone premature/early menopause (and have no available eggs for collection) cannot have IVF with their own eggs. There are alterative pathways to parenthood for these patients (including egg or embryo donation) and our fertility specialists can help patients begin to navigate this difficult path.

Best scientific practice for all

At Newlife IVF, we believe in providing patients with tailored care and genuine care and support. Our standard IVF process incorporated advanced scientific tools and techniques that other IVF providers do not offer or only offer for an additional cost.

Fees

Newlife IVF is committed to affordable IVF, in line with our belief that IVF should be reasonably priced and accessible to all. Visit newlifeivf.com.au/fees for more information

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