

5b. Intra-Cytoplasmic Sperm Injection

ICSI will be performed on the day of Oocyte Pick-Up. During the procedure, a single sperm will be injected into each egg via a micro needle. On the following day, a check is made to confirm that fertilisation has occurred.

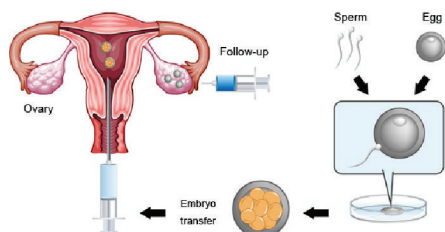
6. Embryo Transfer (ET)

A few days after the egg collection, you will need to return to Alpha IVF Centre to have the embryos placed into your uterus. A full bladder is needed as it facilitates your ET.

Embryos are replaced into the uterus using a fine catheter. This is usually painless and takes only a few minutes. No more than two embryos are transferred at any one time, except under certain circumstances.

You may go home shortly after the embryo transfer. You will be given hormonal support (progesterone or HCG) for the lining of the uterus and to enhance the chances of the embryos implanting.

There is restriction on activities including unprotected sexual intercourse and high impact activities.



Embryo Transfer
Eggs fertilised in-vitro (IVF) with sperms. Embryo transferred directly into uterus bypassing tubal occlusion.

7. Freezing of extra embryos

A proportion of patients may have excess to good quality embryos. These may be frozen for future use. Patients do not need to undergo Controlled Ovarian Hyperstimulation and egg collection again for these future thaw cycles.

These frozen embryos can be stored for up to 10 years from the date of their fertilisation. There is an annual storage fee for these frozen embryos.

8. Pregnancy

You need to come to Alpha IVF Centre approximately 17 days after the embryo transfer for a pregnancy test. You should call Alpha IVF Centre if you are menstruating so that further instructions can be given.

If you are pregnant, subsequent ultrasound scans and blood tests will be arranged to ensure that the pregnancy is proceeding normally.

● Success rates

Our overall clinical pregnancy rate is about 58% to 60% per cycle and the take-home-baby rate is about 25% to 30%.

Generally, patients who are below 36 years old have a better pregnancy chance. However, your chances of success will depend very much on your own individual circumstances.

● Disappointment and risks

- Cancellation of the treatment cycle may occur due to various reasons, including poor follicular development. Our cancellation rate is approximately 5% to 10%

- Ovarian Hyper Stimulation Syndrome (OHSS) happens when too many ovarian follicles have developed in response to the usual dosage of medication. Although uncommon, it warrants medical attention until its complications have been treated. The severe form of OHSS will affect less than 1% of our patients

- The miscarriage rate is about 10% to 15% while the ectopic pregnancy rate is about 5%

- The risks of oocyte collection (OPU) are very rare. As the procedure involves a needle entering the ovary, complications such as bleeding from the ovaries, uterus or adjacent blood vessels and injury to the intestines or bladder may occur. In such instance, further treatment may be necessary

- When 2 embryos are transferred, there is a 20% risk of twins. The risks of multiple pregnancies are associated with increased maternal problems like hypertension, diabetes and operative delivery. Fetal problems include preterm delivery, growth retardation, low birth weight and complications as a result of prematurity and mortality

In situations where there are triplets or more, multifetal pregnancy reduction can be offered after a full discussion with your doctor. The procedure is usually performed by injecting potassium chloride into one of the fetuses by a Maternal Fetal Specialist. The aim is to reduce the overall risks associated with a higher order multiple pregnancies.

In-Vitro Fertilisation (IVF)/ Intra-Cytoplasmic Sperm Injection (ICSI)

● What is IVF?

In-vitro fertilisation (IVF) involves putting the eggs and sperm together. By natural selection, the egg will usually allow only one sperm to enter and this usually leads to the fertilisation process in the laboratory. After fertilisation, the embryos are allowed to grow for a short period of time before being placed into the uterus. A successful pregnancy can be confirmed about two weeks later.



ALPHA IVF CENTRE
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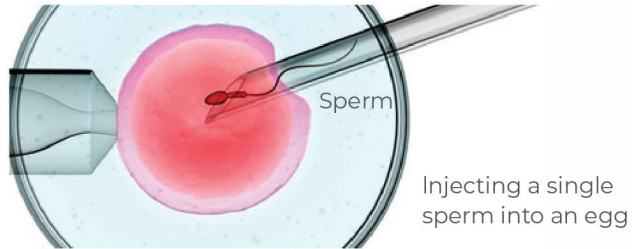
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● Who is suitable for IVF?

IVF is the only fertility treatment for women with irreparably damaged or blocked fallopian tubes. IVF is also offered when infertile women cannot conceive with simpler methods of treatment for conditions such as endometriosis, ovulatory dysfunction, unexplained infertility and sperm disorders.

● What is ICSI?

Intra-Cytoplasmic Sperm Injection (ICSI) involves injecting a single sperm into each egg to allow fertilisation to occur in the laboratory.



● Who is suitable for ICSI?

ICSI is recommended if your husband has poor quality sperm or if you had difficulties with fertilisation in the past. If this is your first ICSI cycle, it may also be combined with regular IVF.

● Counselling and consent

This is a session where the clinician will explain and discuss the procedure with you. Any questions that you have about the treatment can be raised at this time. This will enable you to fully understand the treatment you are about to embark on. You will also need to make some decisions regarding unfertilised eggs and abnormal or poor quality embryos.

A written consent for IVF/ICSI and cryopreservation of the embryos is also obtained.

You will also be offered a separate session with our IVF counsellor on the emotional and physical demands of undergoing the treatment programme and dealing with disappointments of failed attempts.

● Pre-programme preparations

Blood tests have to be performed to exclude venereal diseases such as syphilis, HIV, Hepatitis B and Hepatitis C. These blood tests must be done in Singapore before the commencement of the treatment. Foreigners who have had these tests carried out in another country shall have them repeated in Singapore.

A full blood count will also be taken to determine if you and your husband are at risk of Thalassaemia. A rubella antibody test will also be carried out. You will be advised to have a rubella vaccination before the IVF procedure if you have no immunity against it. Your husband will have a pre-IVF semen analysis to determine any need for the sperm to be frozen and stored. You should also start taking folate daily.

● IVF/ICSI programme

IVF/ICSI programmes utilise Controlled Ovarian Hyperstimulation which results in more eggs and hence a better chance of pregnancy.

There are 2 main protocols used in our centre.

1. Antagonist 'Short' Cycle

a. Stimulation

Gonadotrophins - A transvaginal ultrasound is done on day 2 or 3 of menstruation and daily gonadotrophin injections will usually be started to stimulate the growth of follicles in the ovaries.

b. Monitoring

The daily injections will continue while transvaginal ultrasounds are performed frequently to check on the size and number of the follicles.

c. Oocyte (egg) retrieval

When the follicles have reached the desired size, a night injection of HCG is given and the GnRH antagonist and Gonadotrophins are discontinued. The HCG injection is required for the final maturation of eggs. Egg collection is scheduled about 36 hours later.

2. Agonist 'Long' Cycle

a. Suppression

GnRH agonist - usually in the second half of your menstrual cycle, GnRH agonist injections will be started to prevent spontaneous ovulation. This injection is continued for about 2 to 4 weeks.

b. Stimulation

Gonadotrophins - After 2 to 4 weeks of GnRH agonist injections, a blood test and transvaginal ultrasound will be performed before adding on gonadotrophins to stimulate the growth of the ovarian follicles.

c. Monitoring

The daily injections of Gonadotrophin and GnRH agonist will continue while transvaginal ultrasounds are performed frequently to check on the size and number of the follicles.

d. Oocyte (egg) retrieval

When the follicles have reached the desired size, a night injection of HCG is given and the GnRH agonist and Gonadotrophins are discontinued. The HCG injection is required for the final maturation of eggs. Egg collection is scheduled about 36 hours later.

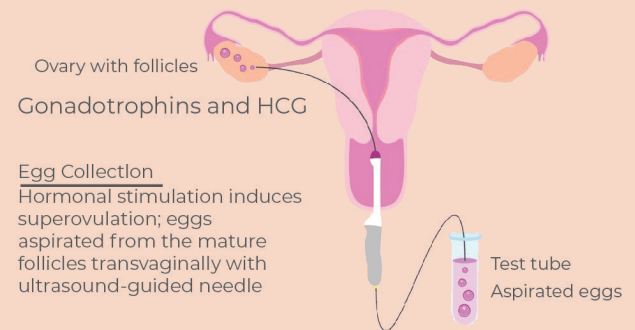
3. Sperm preparation

During the gonadotrophin injections, both you and your husband must have protected sex throughout the treatment cycle. Your husband needs to clear his semen 3 to 5 days before egg collection. On the day of the egg collection, your husband needs to produce a fresh masturbated semen sample.

4. Egg collection (Oocyte Pick-Up)

The egg collection is performed at Alpha IVF Centre in the morning. The eggs are collected through a special needle attached to an ultrasound vaginal probe. A mild sedative will be given to you. Only minimal discomfort will be experienced during the procedure. After the egg collection, you will be observed for a few hours before going home. It is important to understand that not all follicles will necessarily contain an egg and that some of the eggs may not be mature enough for fertilisation.

An overnight fast is required before Oocyte Pick-Up procedures.



5a. Fertilisation

The sperm is added to the collected eggs in a dish on the same day as the Oocyte Pick-Up (OPU) procedure, to allow fertilisation to occur by natural selection in the laboratory. A check to confirm that fertilisation has occurred is carried out the following day. In about 10% of couples, there is no fertilisation at all.