

- ii) To allow egg maturation and retrieval of eggs at a specific time.
- iii) To fertilise the eggs with the husband's sperm in the laboratory.
- iv) To replace the embryo in the uterus at a specified time.
- v) To support the implantation of the embryo.

**C) How long does it takes to complete one cycle?**



It takes about 4-6 weeks to complete one cycle.

**D) What side effect and complication will I expect?**



The most common complication from this programme is overstimulation of the ovaries as a result of hormone injections. This causes lower abdominal swelling, water retention, difficulty in breathing and discomfort. In CHR, this problem is minimised by careful selection of doses of drugs used and close monitoring of the follicular development. The incidence of this complication is less than 2%.

In addition, there is usually more than one embryo replaced, so there is a chance of multiple births.

**E) How much does it cost to complete one cycle?**



It costs about \$8,000 - \$12,000 to complete one cycle of IVF.

**F) How much can I claim from Medisave?**



Both husband and wife can claim up to \$6000, \$5000 and \$4000 from Medisave for their first, second and subsequent cycles respectively, subject to the lifetime cap of \$15,000.

**G) How much can I claim from IVF Co-Funding?**



IVF	SC - SC Couple*	SC - PR Couple*	SC - Foreigner Couple*
Fresh Cycle	75%, up to \$7,700	55%, up to \$5,700	35%, up to \$3,600
Thaw Cycle	75%, up to \$2,200	55%, up to \$1,600	35%, up to \$1,000

\* At least one member of the couple must be a Singapore Citizen (SC)

**Contact Us**

**Clinic for Human Reproduction**

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 Opening Hours : 8.00 am - 5.00 pm (Mondays – Fridays)  
 8.00 am - 12.30 pm (Saturdays)

**Location**

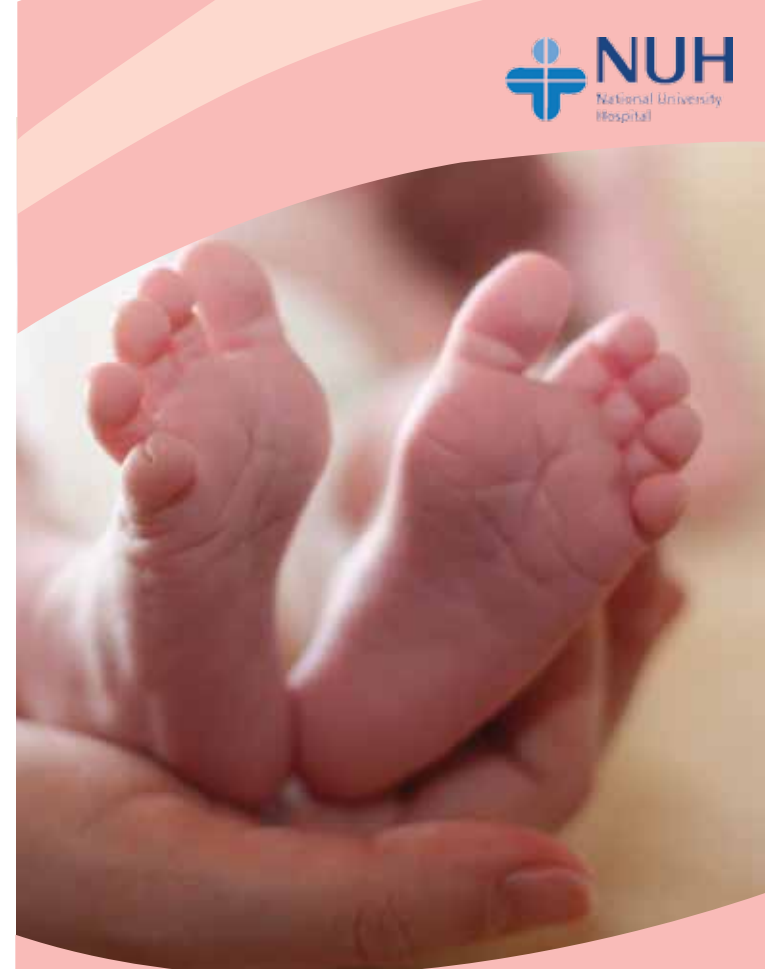


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NUH Women's Centre  
 Is My Answer

**Clinic for Human Reproduction**



Fig. 1: A doctor consultation session in CHR.

The Clinic for Human Reproduction (CHR) was established specifically for infertile couples to provide them the necessary information and care for their treatment. Since its inception, it has served both local and international patients, and performs an average of 400 fresh cycles of IVF per year.

The clinic is staffed by specialised medical staff as well as embryologists who can provide the necessary support and assistance in a private and personalised manner.

With the same team of staff serving our patients in a comfortable and private setting, we aim to help them feel at ease and thus, better facilitate consultation and treatment throughout the duration of the fertility programme.

### What is ART?

The Assisted Reproductive Technology (ART) programme at NUH is one of the leading programmes of its type with many breakthroughs in the field of assisted reproduction. Headed by Prof P C Wong (Director of the programme and Head, Division of Reproductive Endocrinology & Infertility of our Department of Obstetrics and Gynaecology) and supported by a team of specialists, it is committed to improving fertility through ART.

ART involves the use of one or several techniques to bring the egg and sperm together, eliminating the chance element to conception and reducing or removing the need for the sperm to swim through the cervix and the fallopian tubes to meet the egg. ART techniques have revolutionised the management of infertility. In most instances, ART involves recovering the eggs from the ovaries and fertilising them with sperm outside the body in the laboratory. The developing embryos are then replaced artificially into the uterus or fallopian tube.

It has been able to achieve consistently high pregnancy rates through its In-Vitro Fertilisation (IVF) programme. With the latest emphasis on extended embryo culture, our IVF programme has maintained a high clinical pregnancy rate per embryo transfer.

### What Are the Services Offered in CHR?

- In-vitro fertilisation (IVF)
- Intracytoplasmic sperm injection (ICSI)
- Intrauterine insemination (IUI)
- Blastocyst culture
- Embryo replacement
- Embryo cryopreservation
- Assisted hatching
- Sperm extraction from testicular biopsy specimens
- Sperm preparation for MESA (Microscopic Epididymal Sperm Aspiration), PESA (Percutaneous Epididymal Sperm Aspiration) and testicular biopsy

### What is IVF?

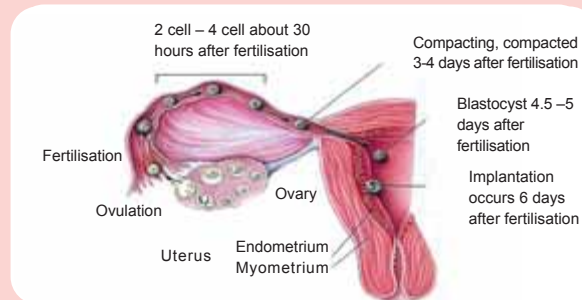


Fig. 2: Pre-implantation development occurs in the fallopian tube and uterus during which the embryo cleaves to form a blastocyst.<sup>1</sup>

IVF or In-Vitro Fertilization is a process where fertilisation takes place in a petri dish (outside the human body). This procedure mimicks the pre-implantation development of a fertilised egg that occurs in the woman's reproductive tract as shown in the Fig 2.

It involves ovarian stimulation and egg retrieval. Shortly before egg retrieval, the husband's semen sample is collected and processed by a method called sperm washing. The fertilised eggs are then cultured in a special culture medium for three to five days before they are replaced into the uterus of the patient.

<sup>1</sup>Reference from fig. 2 is taken from Principles of Anatomy and Physiology by Tortora and Grabowski 8th edition HarperCollins Publishing Inc.

### WHAT IS IUI?

Intrauterine insemination (IUI) is a timed insemination whereby treated sperm is introduced directly into the uterus. It is for patients who may demonstrate sperm-cervical mucous hostility, poor quality sperm, or for unknown causes of failed conception after repeated attempts.

### What is ICSI?

Intracytoplasmic Sperm Injection or ICSI is used to aid fertilisation for men who have low sperm count. It is also an option for men with congenital absence of the vas deferens or for those who had vasectomies. ICSI is also offered to couples who previously had poor fertilisation or total fertilisation failure with IVF. Following oocyte retrieval, a single sperm is injected into each oocyte. The resulting embryos are cultured for three to five days before being transferred into the uterus of the patient.



Fig. 3: An embryologist performing an ICSI (injection of a single sperm into the cytoplasm of the egg) in the IVF lab.

### Frequently Asked Questions

#### A) Who requires IVF?



- Generally, IVF may be used in the following situations:
1. When there is damage to the fallopian tubes such that sperm is unable to meet the egg.
  2. Reduced sperm count or sperm is abnormal.
  3. Women who have problems with cervical mucus.
  4. Women with irregular menses or severe endometriosis.
  5. After failed intrauterine insemination (IUI).

#### B) How is IVF performed?



There are several stages in the procedure. The aims of the IVF treatment are:

- i) To stimulate the wife's ovaries to produce an optimum number of eggs.