CONNECTING THE DETAILS OF YOUR FERTILITY JOURNEY

PATIENT GUIDE

MERCK

Contact Information

Fertility Clinic Details:

Fertility Nurse Co-ordinator Name:

Fertility Nurse Co-ordinator Contact Number:

With help and a hopeful heart

AN INTRODUCTION TO YOUR OWN FERTILITY JOURNEY

It may take months and many heartfelt discussions between a couple before deciding to take the next step, and go to a fertility clinic. It could feel overwhelming, and incredibly stressful.

If you have been trying to fall pregnant, you were probably surprised that it didn't happen right away, or maybe even distressed. You may feel as if you are surrounded by pregnant women and small children, and that you are alone in having difficulties in conceiving. In reality though, 1 in 4 couples fail to conceive naturally.*

Take heart. We hope this guide will help you find your way through what can be an emotionally uncertain, and frustrating journey. We're with you all the way.

*World Health Organization. Global prevalence of infertility, infecundity and childlessness. 2012. Available at : https://www.who.int/reproductivehealth/topics/infertility/burden/en/. Accessed: 27 March 2020

With healthy living choices

TIPS TO ENSURE YOUR WELL-BEING THROUGHOUT THIS JOURNEY

Your overall health affects your fertility, so now is the time to take extra care of yourself. You and your partner should pay special attention to making healthy living choices as indicated below.

- Body weight: Being either overweight or underweight may cause extra difficulties conceiving, so work towards a healthy weight. Your doctor will be able to advise you on appropriate lifestyle changes, including a balanced diet.

- Supplements: Talk to your doctor about appropriate supplements, such as folic acid, to make sure that your body is in good shape to get pregnant.

- **Exercise with caution:** Exercising heavily every day may interfere with the regularity of the menstrual cycle. For men, prolonged cycling can cause damage to the groin and there is also the risk of damage to the testicles from contact sport.

- **Caffeine:** Limit the amount of coffee, tea, or caffeine-containing soft drinks that you consume, to no more than two cups per day, and consider decaffeinated versions where possible. Caffeine may affect your fertility.

- **Heat:** Prolonged use of hot tubs or saunas may decrease sperm quantity and quality.

- **Illegal drugs:** Drugs such as marijuana, steroids, and cocaine may increase the risks to your baby, and may lower sperm count.

- **Smoking:** Smoking can affect the number and quality of sperm, and increases the risk of not being able to sustain an erection. In women, smoking cigarettes is thought to disrupt hormonal regulation. Speak to your doctor to find tools and support to help you to quit smoking.

- **Alcohol:** Excessive alcohol can affect sperm count, increase the risk of miscarriage, and of having a baby born with birth defects. Therefore, you and your partner should limit your alcohol intake while trying to conceive.

- **Medications:** Inform your doctor if you are taking any medications. Certain medications can affect a man's sperm count.

- **Lubricants:** Avoid using petroleum jelly, vaginal creams or products containing spermicide for lubrication during intercourse. Ask your nurse or doctor about which lubricants they recommend.

- **Environment:** Check your possible exposure at work to toxins, such as lead, pesticides and chemicals. You may be able to arrange temporary reassignment to avoid risks. If you are unsure, talk to your human resources department or occupational health and safety advisor.

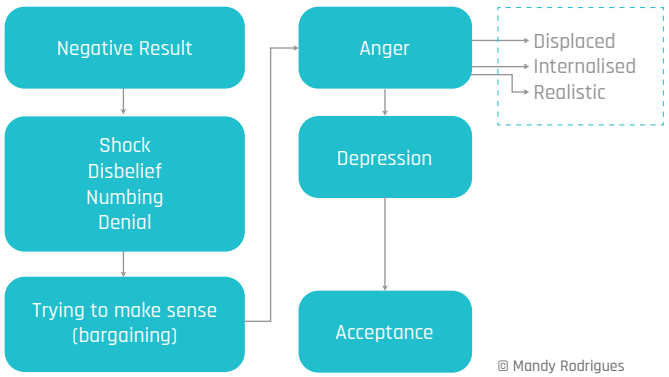
With mental well-being

TIPS TO ENSURE YOUR WELL-BEING THROUGHOUT THIS JOURNEY

Content provided by Mandy Rodrigues, clinical psychologist

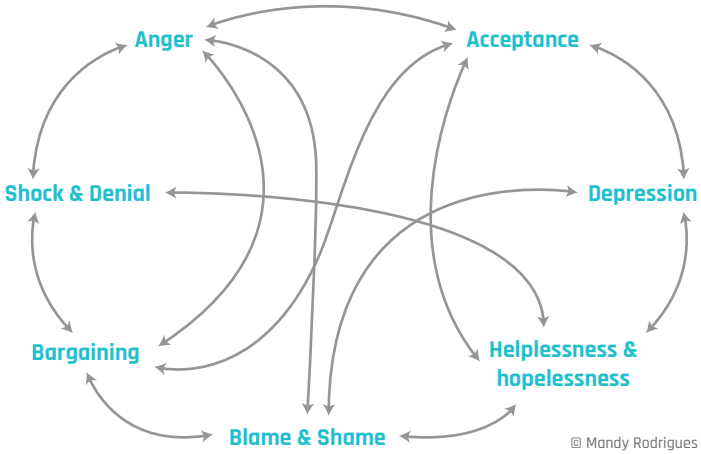
Infertility challenges every aspect of our lives. Not only does it have financial implications, but the emotional, social, and interpersonal difficulties make it even more difficult. We know we go through physical discomfort with each cycle, but what we seem to find the most painful is the emotional aspect. For many years, we have recognised the roller coaster of emotions that patients go through with each cycle. This roller coaster is relentless, yet exciting to embark on, and feeds us with hope, until the ride becomes rough and is met by the two-week wait which causes trepidation and anxiety, and then a potential negative result which results in a grief cycle as depicted below.

THE ROLLER COASTER OF INFERTILITY



You may feel anxious as you perceive Assisted Reproductive Techniques (ART), such as in vitro fertilisation (IVF), as the 'ultimate' of all fertility treatments, and you may worry: "What if this doesn't work, what then?" We all worry about how we will manage a potentially negative result, as well as the invasiveness of the whole program, its impact on our life, our job, our marriages, and our mental well-being.

What is unique about the grief associated with infertility is that it is relentless, ongoing, and accompanied by hope and excitement every month, or every treatment cycle. We find it hard to get off the roller coaster once we have tasted some of that excitement. However, we have found that the cycle is not as neatly depicted as the above image, and the reality becomes more like a constant upheaval.



The reaction to infertility has been described as a post-traumatic stress reaction. In post-traumatic stress, we relive the trauma, dream about it, can think of very little else, and there are hooks or triggers reminding us of the trauma all the time. We start avoiding the stimuli that remind us of the trauma. We either want to talk about it all the time, or avoid it completely. It is the same with infertility. We struggle to make sense of it. We are reminded of it when we see babies in trolleys, pregnant women, baby showers, and adverts. We try to avoid situations that remind us of our infertility. It starts to dominate our life. We eventually suffer from anxiety and depression.

Just like patients with PTSD need help, so too do patients experiencing the stress of infertility. As time progresses, this continuous cycle has an impact on our relationships, our friendships, our work, and our thoughts. This is where the multidisciplinary team approach to infertility becomes important at clinics. When we have no one to share our fears with, we should be able to turn to nursing staff, program managers, and psychologists in the field. In addition, to maintain privacy, there are support groups available, and symposiums held for the infertile couple or individual to attend, with the opportunity to share or to listen. Some people like sharing with others, but many are fairly reluctant to join a support group, and that is when the resources below become useful. There are virtual resources available which allow you to maintain anonymity, yet receive support and relevant information from a variety of sources.

Tips to help you cope

If you are in a relationship, approach this as a couple, together.

Many people hear the horror stories about the impact of infertility treatments on relationships. However, it is not the fertility treatment *per se* that causes the problem, but the way in which we manage the journey as a couple. It is often suggested that couples see a mental health professional together, to talk about their expectations regarding the process before they embark on it. Research shows that the more your partner buys into the process, the more successful the outcome. Men are often optimistic, and want scientific explanations of the process. They want to know how their partner will cope if the test is negative, and the plan forward. It is useful to manage the couple's expectations of the process, and how each can support the other. In general, men tend to battle more with the impact of the infertility on their partners and relationship, than with the infertility itself. They struggle with the tears and desperation, as they feel helpless and frustrated. This results in couples **coping independently,** a phrase coined in infertility research, which explains how each partner begins to cope independently as they try to keep their own distress from each other. This just isolates each party more.

A suggested means of coping with infertility within the relationship.

To all the men: Allow your partner to speak about the fertility journey.

To all the women: Understand that men want a solution, and choose to avoid rather than address the issue when they cannot find a solution.

To the couple: Set aside twenty minutes after dinner each night to address the topic of infertility or ART. By choosing a set time, you both make the effort to address the issue together with no distractions, so that the woman feels supported, and the man doesn't feel surprised by a phone call, or a request to talk during the night, or work hours. If nothing emerges as important, then the next time for discussion becomes the next day. With time, the discussion becomes predictable and contained, so that it doesn't intrude on the rest of the relationship. During this time, you can each write down a potential fertility trigger that you faced during the day. A fertility trigger is a situation related to, or alluding to infertility, which evokes a negative reaction. For example, a pregnancy announcement, seeing a baby, attending the clinic and so on. By each of you writing down a trigger, it generates conversation, empathy, and a realisation that your triggers are very different as a couple. The trend is generally that men are more concerned about the impact this has on their partner and the relationship.

With any stressful situation, the more knowledge we have, the better equipped we are to cope with the situation. Predictability gives us a sense of control and stability. Gather the right information from the right sources at the clinic, and educate yourself about the process. There is always a nurse, or doctor, available to go through the process, and what to expect. Take the IVF process and break it up into manageable parts. Plan your routine around the potentially "bad news days" like aspiration, or news about the embryos in the laboratory. The ideal is to have the cognitive strength to view the first IVF cycle as an exploratory process, albeit an expensive one, which will give you a lot of information you perhaps didn't have before. It will give you the peace of mind that all appears okay and that embryos can be formed, even if you do not get a positive outcome the first time around. The news can be informative in realising there is more that is needed for a successful outcome.

Making the process predictable.

- Discuss the actual detail of the process with a nurse or your fertility specialist.
- Plan your month around the IVF, but do not allow it to dominate your day. Ensure you choose times where you can come to the clinic without undue stress or pressure to travel.
- Make it clear what you expect from your partner or family.
- Consider how you are going to manage friends and family updates.

Be realistic about the outcome and have a plan going forward

Many people do not adequately prepare themselves for a negative result. The devastation that follows, leaves them feeling unsupported and reluctant to go through the process again. Remember, there is support available at clinics, and patients should plan for a follow-up appointment after a negative result, even if it is used as a form of closure or making sense of what could possibly be different in the future. A negative result leaves a huge sense of emptiness and despair. The way one copes with this is to have a longer-term plan for your fertility journey. If a cycle does not work, have a path ahead. If this means closing that door, or starting a different form of treatment, like donor eggs, have that window slightly open before embarking on this process. A big sense of disillusionment comes from focusing solely on becoming a parent, and putting the rest of our lives on hold. We know that peace of mind is eluded with an increasing time to pregnancy*. If pregnancy dominates our goals, we have a larger sense of meaninglessness and despair if it doesn't happen.

Take a few minutes to complete the goal table below. You will find that even though fertility related goals may seem out of your control, other goals will fulfil a sense of achievement, if they are also running parallel to having a family.

Establishing a goal list

GENERAL THEMES	5-YEAR GOALS	1-YEAR GOALS	3-MONTH GOALS
FERTILITY-RELATED			
WORK-RELATED			
FAMILY-RELATED			
TRAVEL			
HOME/HOUSEHOLD			
HEALTH			
PSYCHOLOGICAL WELLBEING			
OTHER			

"Handbook of Fertility: Nutrition, Lifestyle and Reproductive Health" titled, The Psychological Management of Infertility. Edited by Ronald Ross Watson (2015). Elsevier: United Kingdom.

Be realistic about the outcome and have a plan going forward

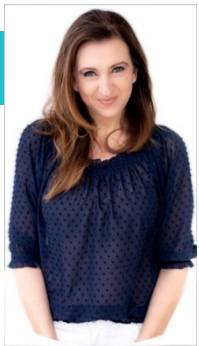
There is emerging evidence indicating that chronic stress impacts negatively on IVF results. This stems from the field of psycho-neuroimmunology which explores the idea that your emotions can influence your physical health. However, don't panic if you are stressed and undergoing fertility treatment. A lot of the research shows that acute stress has no impact on IVF, but the relief of stress improves the statistics of a positive result. Research conducted at a fertility clinic in Johannesburg, South Africa, showed that the management of chronic stress improved IVF success rates to 62 % and higher, whereas chronically stressed patients had an average success rate that was comparative to IVF results across the world.

As a rule, people in war zones, living in poverty or in times of drought do not necessarily battle to conceive.

This is real stress. And real stress such as undergoing IVF is normal and appropriate, and it is understandable to be stressed. If you are worried about your chronic, longer term stress, go to **www.tups.co**, and measure your self-induced stress. If your levels, are high, you may need to decrease these levels as the higher your TUP Stress, the longer the time to pregnancy. Also, counselling cannot be underestimated. The incidence of depression, post-traumatic stress reaction and independent coping in a marriage are some of the consequences which can be managed by a therapist specialising in the field of infertility.

What can you do to manage your stress?

- Online stress management courses such as www.tups.co.
- Identify your fertility triggers. These are any scenarios or situations creating negative emotion as relates to your infertility, such as a pregnancy announcement, seeing a friend's baby, or attending a baby shower. Write your fertility triggers down for a week. Try to make them predictable. If you cannot prepare yourself for the predictable triggers, then avoid them until you feel better able to face them. Avoiding a trigger might be as simple as not attending baby showers in the short term, or not attending children's birthday parties until you feel better.
- Join an on-line fertility support group that gives you accurate and credible information. These include online support groups like **House of fertility**, **EmptyWombs**, **IFAASA**, **SASREG**, **Hannah_you_are-not_alone** and **FertilyGo**. Many people are unlikely to want to sit in a room full of people and openly disclose their challenges. Fortunately, these support groups give support online as well as offer online webinars and the occasional group meeting that you can attend, where you are not placed on the spot and individuals can sit in an audience and engage, or not, with experts in the field. These support groups give unbiased support and recommendations based on your individual needs, and might help you choose the fertility specialist that suits your personality.



Clinical psychologist, Mandy Rodrigues, has worked in the field of infertility for the past 28 years, having been through her own fertility journey. Her passion includes working with individuals, couples, and groups, helping them to cope with their fertility journeys, and assisting them in making critical decisions. A large part of her practice involves stress management, and the need for a multidisciplinary approach in infertility. She shares her knowledge and passion through lecturing, writing numerous articles, and motivational speaking.

Mandy is on the Board of SASREG and is a contributor to the European Fertility Society's guidelines for infertility. She is also actively involved in creating guidelines for surrogacy and gamete donation in South Africa.

With timing

THE CRITICAL ROLE HORMONES PLAY IN YOUR NATURAL CYCLE

Why all the focus on counting days? Nature follows a fairly precise schedule, and each step in your cycle is controlled by hormones that must be produced in the correct amounts, at the right times, for you to conceive.

Your fertility treatments may include hormonal therapy that adds to, or replaces, your natural hormones. Here is a quick review of how your natural cycle works, to help you better understand how your medications work.

Ovulation, at about day 14 of a typical 28-day cycle, divides the cycle into two phases – the follicular phase and the luteal phase. These phases are described in more detail below. (See illustration to the right.)

Follicular phase (days 1-13)

Count the first day of menstrual flow as Day 1. During the next 12 days, your body releases follicle-stimulating hormone (FSH), which stimulates the development of a follicle (a fluid-filled sac) in one of the ovaries. This follicle produces a single mature egg. While this is happening, the follicle secretes oestrogen, which prepares the cervical mucus at the entrance of the uterus to receive sperm. The oestrogen also causes the lining of the uterus (endometrium) to thicken.

A surge in luteinising hormone (LH) around the 14th day prepares the final step of the maturation of the egg, and triggers ovulation. The egg is released from one of the ovaries and travels down a fallopian tube. When a couple has intercourse, the sperm attempts to swim past the cervical mucus and into the fallopian tube, where it can fertilise the egg.

Luteal phase (days 15-28)

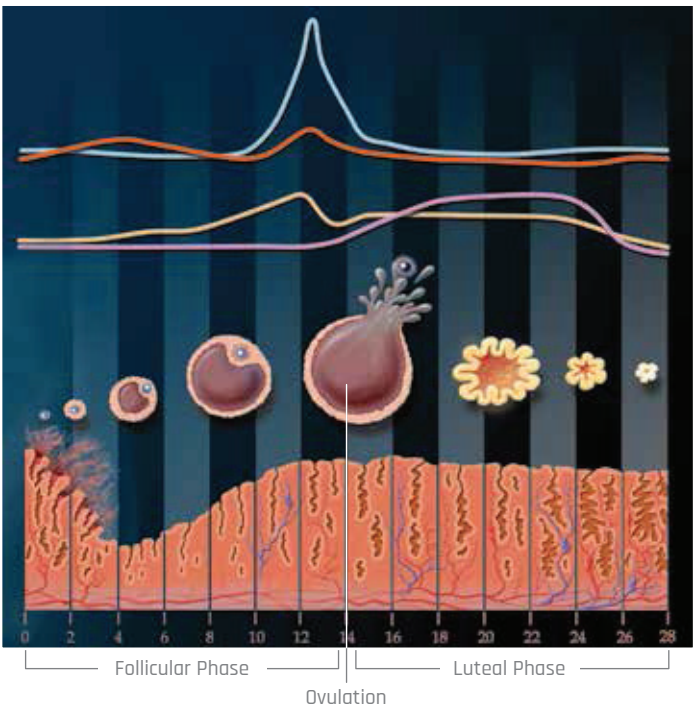
Following ovulation, the hormones progesterone and estrogen develop and maintain the endometrium, so that it's ready to receive a fertilised egg.

- If the egg is fertilised, the embryo travels down the fallopian tube to implant itself into the endometrium; this happens about the 20th day of the cycle. Here it will develop into a foetus.

- If the egg is not fertilised, it still continues its journey into the uterus, but the uterus does not receive a message from the hormones that fertilisation has occurred. Without this hormonal message, the uterus ends its preparations for pregnancy, shedding the endometrial lining through menstruation.

Typical 28 day cycle calendar

Luteinising hormone (LH) produced by the pituitary gland
Follicle-stimulating hormone (FSH) produced by the pituitary gland
Oestrogen produced by the ovaries
Progesterone produced by the ovaries



With assistance

AN INTRODUCTION TO ASSISTED REPRODUCTIVE TECHNOLOGIES (ART)

The treatment process can be overwhelming at times. The clinic staff are there to answer all your concerns, which can help reduce your anxiety significantly.

Assisted Reproductive Technologies (ART) is a broad term that includes all sorts of fertility treatments. Some treatments involve stimulating ovulation in those patients with ovulatory problems. The more advanced treatment types typically involve the removal of eggs from a woman's ovaries, to fertilise them in the lab with partner or donor sperm, and then the resulting embryos are put back into the woman's uterus. When it comes to ART, people usually think of in vitro fertilisation (IVF), but there are several other different procedures, and your doctor will pick the one that is best for you. A quick overview of the main procedures is outlined below.

Medications

Most procedures include one or several medications. These add to, or replace your natural hormones, working hand in hand with medical treatments to help you get pregnant.

Some medications stimulate the development of follicles (the sacs that hold the eggs). Other medications signal the pituitary gland (located in the brain) to release your natural hormones, controlling the timing of the reproductive cycle. Some help the eggs to mature and release, and get ready for fertilisation.

To understand how these medications work, you need to understand how hormones work during a natural monthly cycle. This is because the medications mimic those hormones during your fertility treatments, at doses higher than are naturally present in the body, to encourage one or several eggs to develop.

Medical treatments

In combination with medications, the procedures most commonly used in fertility treatments are listed below. No one treatment works best for everyone – your doctor will determine the best one for you based on your individual characteristics, such as age, weight, ovarian condition, and any factors affecting your partner.

1. Ovulation Induction (OI)

The term ovulation induction refers to the use of medical therapy to help you grow and ovulate an egg in cases where ovulation is not occurring naturally. Ovulation induction involves taking fertility drugs, either in the form of oral tablets or injections, to stimulate the release of follicle stimulating hormone (FSH). Only a small dose of hormone treatment may be needed to develop the follicle. The medications are taken at the beginning of the menstrual cycle. Throughout your cycle, you will be monitored with blood tests to measure the levels of oestrogen, and ultrasound tests to determine when you are ovulating. This will help you, and your doctor, decide the best time for intercourse, or intrauterine insemination (IUI), to achieve conception.

2. Controlled Ovarian Stimulation

This involves producing more than one egg with the aim of improving fertility in a woman who already ovulates. It involves larger doses of fertility drugs, and is used in conjunction with assisted reproductive technologies, such as IVF, when multiple eggs are required (which can be frozen and stored for later use).

3. Intra-uterine Insemination (IUI)

Intra-uterine insemination (IUI) is a common ART procedure, in which sperm are inserted directly into the uterus around the time of ovulation to assist their journey to the egg. The procedure is often combined with the female partner undergoing ovulation induction.

This procedure is commonly used when there may be endometriosis, problems with semen volume, concentration or motility (movement), physical problems with sexual intercourse or, unexplained infertility. After being 'washed' – the sperm are separated from the liquid part of the semen to remove hormones and other substances – and then inserted into the cervix (neck of the uterus). When sperm quality is lower, sperm are inserted higher up the reproductive tract to reduce the distance they have to travel to reach the egg. IUI can also be done using donor sperm, either from an anonymous or a known sperm donor.

4. In vitro Fertilisation (IVF)

In vitro fertilisation was the first ART procedure and is still one of the most commonly used. During an IVF cycle, eggs and sperm are collected and placed together in a laboratory dish to fertilise. If the eggs are successfully fertilised in the laboratory, the resulting embryo(s) are transferred into the woman's uterus. Ideally, one of the embryos will implant and develop, just as in a natural pregnancy.

The IVF cycle generally involves four stages:

- Stage 1: Ovarian stimulation, monitoring, and ovulation triggering
  Since a woman's body normally releases only one mature egg every month, certain medications are used to prevent an early release of eggs, while other medications are used to stimulate the ovaries to develop as many eggs as is safe to do so. Once the eggs are mature, a medication is injected to stimulate the release of the eggs.

- Stage 2: Egg retrieval
  Once ovarian stimulation is complete and follicles have matured, your doctor will try to retrieve as many eggs as possible. Egg retrieval (also known oocyte pick up [OPU]) is performed under light sedation, a local anaesthesia or, in some cases, general anaesthesia. The mature follicles are identified using ultrasound, and then a needle is passed through the vagina to withdraw the fluid from the mature follicle with gentle suction. The fluid is immediately examined under a microscope to see if an egg has been retrieved. The process is repeated for each mature follicle in both ovaries. All retrieved eggs are removed from the follicular fluid and placed in an incubator.

- Stage 3: Fertilisation
  About two hours before the eggs are retrieved, a semen sample is collected from the male partner and processed to select the strongest, most active sperm. The sperm are then placed with the eggs in an incubator set to the same temperature as a woman's body. The next day, the eggs are examined under a microscope to determine whether fertilisation has occurred. If it has, the resulting embryo(s) will be ready to transfer to the uterus a few days later.

- Stage 4: Embryo transfer
  Embryo transfer is not a complicated procedure, and can be performed without anaesthesia. The embryos are placed in a tube and transferred to the uterus. The number of embryos transferred depends on a woman's age, cause of infertility, pregnancy history and other factors. However, in most cases, a single embryo transfer is recommended to reduce the risk of a twin pregnancy. If there are additional embryos that are of good quality, they may be frozen for later use. (See diagram D in the Helpful Visuals section).

5. Intracytoplasmic Sperm Injection (ICSI)

This procedure is used in conjunction with IVF, where a highly skilled embryologist injects a single sperm directly into each egg. This technique is used when the sperm is unable to penetrate the egg wall. If the egg is fertilised, the embryo is inserted into the uterus, as described previously for IVF. (See diagram E in the Helpful Visuals section).

Helpful visuals

ILLUSTRATIONS TO DESCRIBE TREATMENT PROCEDURES

The following diagrams in this section illustrate the procedures most commonly used in fertility treatments as listed in the **With Assistance** section:

- Embryo development and implantation
- Medical and lab procedures:
  - A. Intrauterine Insemination (IUI)
  - B. Oocyte Retrieval
  - C. In vitro Fertilisation (IVF)
  - D. Embryo Transfer
  - E. Intracytoplasmic Sperm Injection (ICSI)

Embryo Development and Implantation

Diagram A: Intra-uterine Insemination (IUI)

Diagram B: Oocyte Retrieval

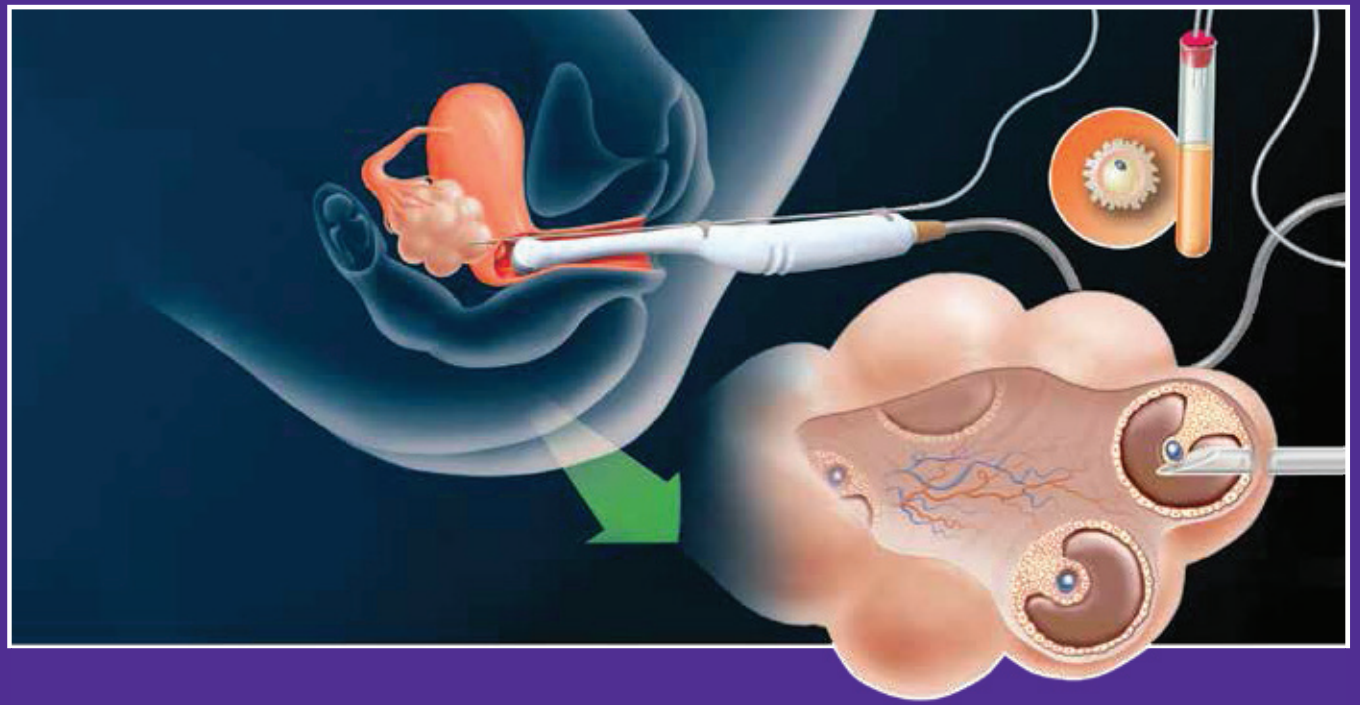


Diagram C: In vitro Fertilisation (IVF)

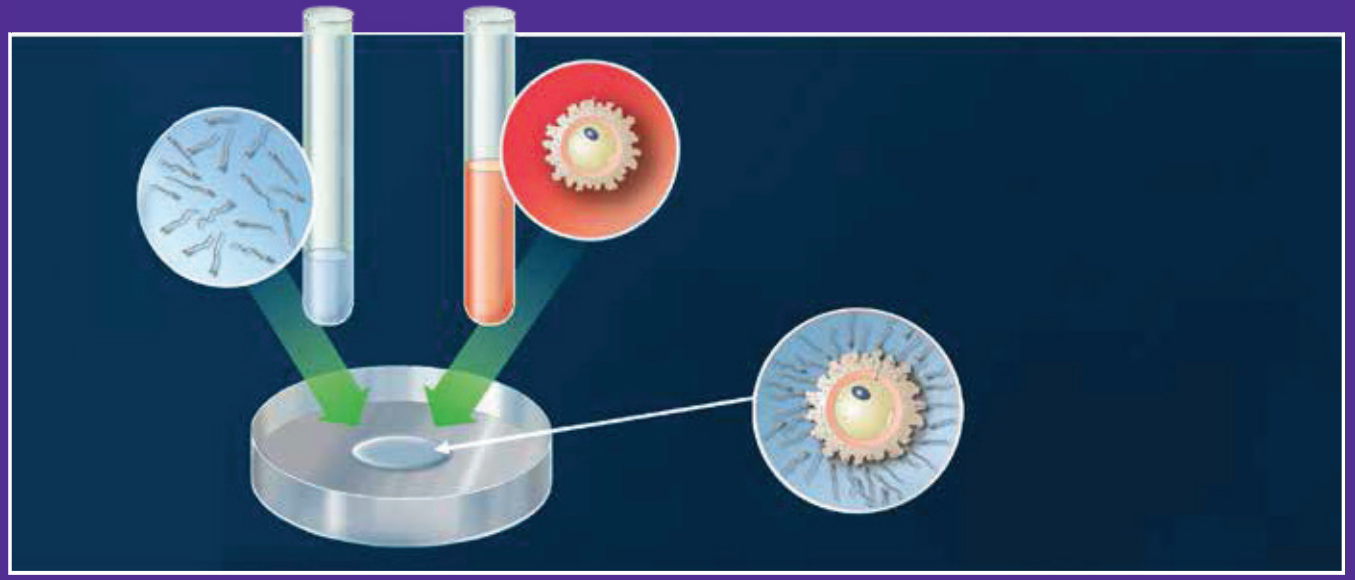


Diagram D: Embryo Transfer

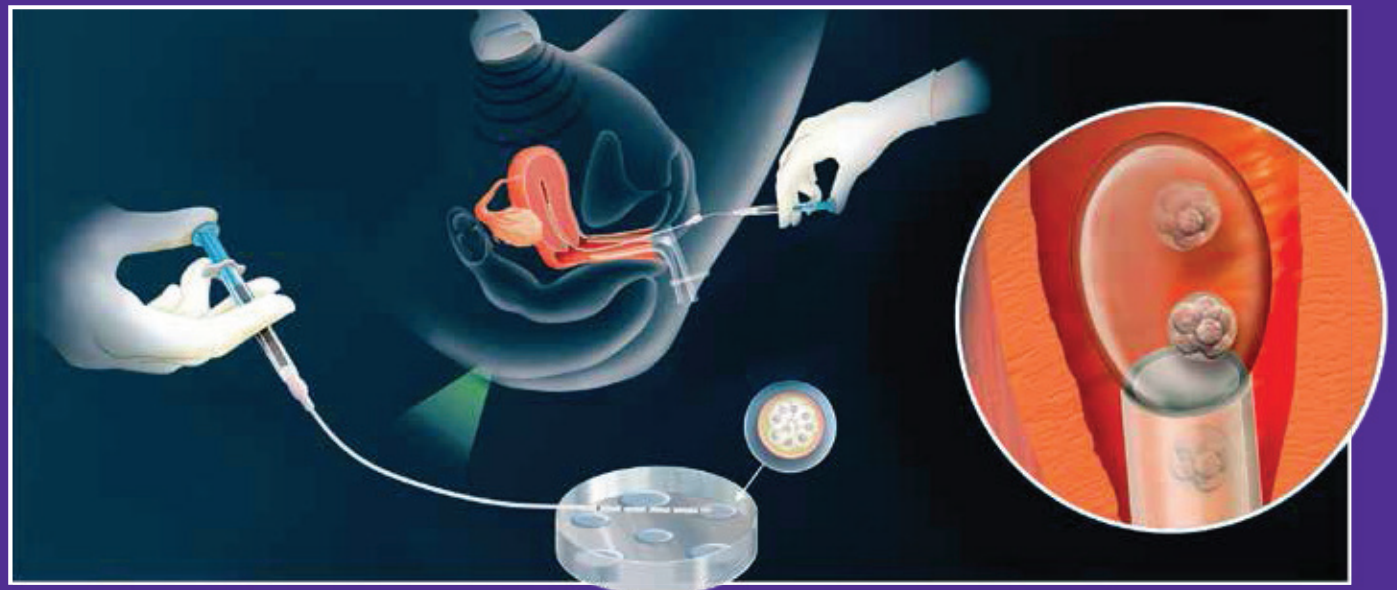
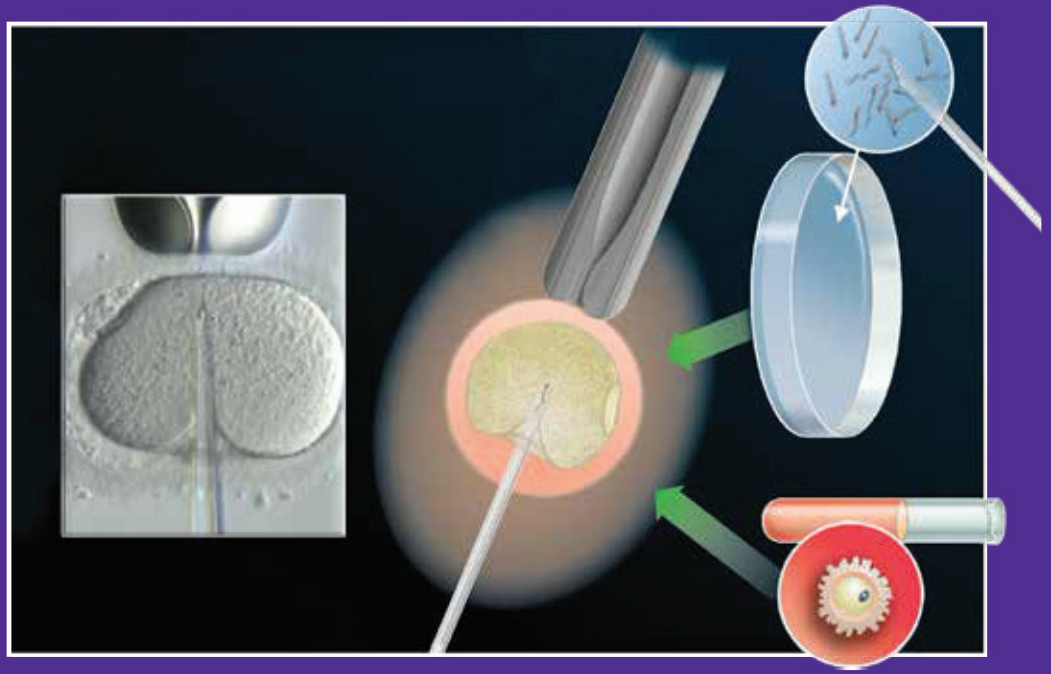


Diagram E: Intracytoplasmic Sperm Injection (ICSI)



With a little explanation

A GLOSSARY OF TERMINOLOGY

Anovulation
The total absence of ovulation.

Assisted hatching
This procedure involves making a small hole in the protective layer that surrounds the embryo to help implantation.

Assisted Reproductive Technologies (ART)
The term for fertility treatments in which a woman's eggs and a man's sperm are handled outside the human body. These include IVF, ICSI, donor egg or donor sperm cycles.

Baseline Ultrasound
An examination conducted before starting fertility treatment, used to determine the general position and condition of the ovaries and uterus.

Cervical Mucus
The cervix produces mucus that permits passage of sperm during ovulation and prevents infection.

Cervix
The lower section of the uterus that protrudes into the vagina, through which the sperm pass to reach the uterus.

Clinical Pregnancy:
A pregnancy in which the beating foetal heart has been identified by ultrasound.

Controlled Ovarian Stimulation (COS)
Stimulating the ovaries with various medications to develop an optimal number of follicles. Medications may also be used to control the timing of ovulation.

Corpus Luteum
A structure that forms in the ovary at the site of the released egg. The corpus luteum releases oestrogen and progesterone, two hormones necessary to maintain a pregnancy.

Cryopreservation (Freezing)
Storage of organs or tissues such as sperm or embryos at very low temperatures. Embryos that are not used in an ART cycle can be frozen for future use.

Ectopic Pregnancy
A pregnancy in which an embryo develops in a place other than the uterus, and cannot grow into a healthy pregnancy.

Egg Retrieval
A procedure used to obtain eggs from ovarian follicles for in vitro fertilisation. This is performed through the vagina using ultrasound to locate the follicle in the ovary.

Endometrial Biopsy
Removing a sample of the lining of the uterus for examination.

Endometrium
The lining of the uterus.

Embryo
The early stages of fetal growth, from conception to the eighth week of pregnancy.

Embryo Transfer
Placing an egg fertilised outside the womb into a woman's uterus.

Fallopian Tubes
Ducts through which eggs travel to the uterus once released from the follicle in the ovary. Sperm normally meet the egg in the fallopian tube, the site at which fertilisation usually happens.

Fertility Specialist or Reproductive Endocrinologist
A doctor specialising in the treatment of people with fertility problems. These Obstetrician/ Gynecologists receive extra training in the study of hormones and infertility.

Fertilisation
Combining the genetic material carried by sperm and egg to create an embryo. Normally occurs inside the fallopian tube (in vivo) but may also occur in a Petri dish (in vitro). (See also In vitro Fertilisation.)

Fibroid
Benign (not malignant or life-threatening) mass of fibrous tissue that can distort the shape and function of the uterus. The size and location of the fibroid will determine how it is managed by your doctor.

Follicle Stimulating Hormone (FSH)
A pituitary hormone that stimulates the growth of egg follicles in the ovaries of a woman.

Follicles
Fluid-filled sacs in the ovary, which contain the eggs released at ovulation. Each month an egg develops in a follicle inside the ovary.

Freezing
(see Cryopreservation)

Gonadotropin Releasing Hormone (GnRH)
This hormone, produced by the hypothalamus, enables the pituitary to secrete LH and FSH, which stimulate the ovaries and testicles.

Gonadotropins
Hormones secreted by the pituitary gland that control reproductive function, such as LH (luteinising hormone) and FSH (follicle stimulating hormone).

hCG (Human Chorionic Gonadotropin)
The hormone produced in early pregnancy and released by the placenta after implantation. This hormone is also used as an injection to trigger maturation and ovulation of the oocyte (egg) in ovarian stimulation protocols.

Hypogonadotropic Hypogonadism (HH)
This is a rare condition in which impaired activity of the hypothalamus or pituitary glands results in below-normal function of the gonads (female ovaries and male testicles). This also results in abnormally low levels of the hormones normally produced, i.e. FSH and LH, estrogen, progesterone and testosterone.

Hypothalamus
The gland at the base of the brain that controls the release of hormones from the pituitary glands.

Idiopathic Infertility
The term used when the cause of infertility cannot be explained.

Implantation
The embedding of the embryo into tissue so it can establish contact with the mother's blood supply for nourishment. Implantation usually occurs in the lining of the uterus; however, in an ectopic pregnancy it may occur elsewhere in the body.

In vitro Fertilisation (IVF)
During this procedure, the eggs produced with the help of fertility drugs are retrieved and fertilised by sperm in a laboratory. The resulting embryo(s) are transferred by catheter to the uterus.

Infertility
The inability to conceive after a year of unprotected intercourse (six months for women over age 35).

Intracytoplasmic Sperm Injection (ICSI)
A procedure done under a microscope, in which a single sperm is injected directly into the egg. The resulting embryo(s) are then transferred to the uterus by a catheter.

IUI (Intra-uterine Insemination)
A procedure in which sperm is directly placed into the uterus through the cervix using a catheter. Most often used as a treatment for unexplained infertility and mild male factor.

Luteal Phase
Days of the menstrual cycle after ovulation when progesterone is produced by the corpus luteum.

Luteinising Hormone (LH)
A pituitary hormone that stimulates the ovaries and testicles. In a woman, LH is necessary for the production of estrogen. In a man, LH is necessary for spermatogenesis and for the production of testosterone.

Luteinising Hormone Surge (LH Surge)
The release of luteinising hormone that causes release of a mature egg from the follicle.

Menstruation
Shedding of the uterine lining by bleeding. In the absence of pregnancy, this normally occurs about once a month in the mature female.

Miscarriage
Spontaneous loss of an embryo or foetus in the womb.

Morphology
The physical structure and configuration of sperm cells.

Motility
The ability of sperm to swim or move. Poor motility means the sperm have a difficult time getting to the egg.

Multiple Pregnancy
A pregnancy with two or more foetuses.

Oestrogen
The hormone that stimulates secondary female sexual characteristics such as breasts and controls the course of the menstrual cycle.

Oocyte
The egg produced in the ovary.

Ovarian Failure
The failure of the ovary to respond to FSH stimulation from respond to FSH stimulation from the pituitary. This may be due to damage or malformation of the ovary, or a chronic or autoimmune disease. Diagnosed by elevated FSH levels in the blood.

Ovarian Hyperstimulation Syndrome (OHSS)
Severe ovarian enlargement accompanied by fluid accumulation in the abdominal cavity. This may occur with or without pain, and with or without accumulation of fluid in the lungs. OHSS is caused when the ovaries become over-stimulated by the various hormones that cause follicular development.

Ovaries
The two reproductive organs of a woman where the eggs are stored. The ovaries also produce the hormones estrogen and progesterone.

Ovulation
The release of the egg (ovum) from the ovarian follicle.

Ovulation Induction (OI)
Medical treatment to start ovulation.

Pituitary Gland
A gland located at the base of the brain. This secretes a number of important hormones that regulate fertility, as well as normal growth and development of the body.

Polycystic Ovarian Syndrome (PCOS)
This common reproductive endocrine disorder involves the ovaries producing excessive amounts of androgens, which prevents regular egg development. Despite the name, not all women with PCOS have small cysts fluid filled sacs) in their ovaries which are visible on ultrasound.

Progesterone
The hormone produced by the corpus luteum during the second half of a woman's cycle. It thickens the lining of the uterus to prepare it to accept implantation of a fertilised egg.

Sperm (Spermatozoa)
The microscopic cell that carries the male's genetic information to the female's egg. Also called the male reproductive cell or the male gamete.

Sperm Count
The number of sperm in an ejaculate. Also called sperm concentration and given as the number of sperm per milliliter.

Sterility
An irreversible condition that prevents conception.

Subcutaneous (sc) Injection
Delivering medication with a fine small needle into tissue just below the surface of the skin.

Testes
The two male reproductive organs that produce sperm as well as the male hormone testosterone.

Testosterone
The male hormone responsible for forming secondary sex characteristics (such as facial hair) and supporting the sex drive. Testosterone is also necessary for sperm development.

Tubal Pregnancy (a type of Ectopic pregnancy)
The development and attachment of an embryo in a fallopian tube.

Ultrasound
A medical imaging technique used to visualise the reproductive organs. Transvaginal ultrasound may be used to monitor follicular development.

Uterus
The hollow muscular organ where the fetus grows until birth.

Vagina
A muscular opening in a woman extending from the vulva (the female external genitalia) to the cervix of the uterus.

With thanks

OUR SINCEREST THANKS TO THOSE WHO CONTRIBUTED

We thank the fertility healthcare teams for working tirelessly to ensure that you are supported in your fertility journey. We hope that this booklet has been helpful and we wish you success with your fertility journey.

Notes

QUESTIONS I WANT TO ASK MY HEALTHCARE PROFESSIONAL

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