Janisthaa
Fertility Centre & Hospital
Towards Motherhood

Fertility Treatment Options

at Janisthaa Fertility Centre & Hospital

INTRODUCTION

INFERTILITY A COMMON PROBLEM

There are many treatments for infertility. **In Vitro Fertilization (IVF)** is the most advanced of them all. The multi-step procedure was first developed in the late 1970s to treat women with blocked or damaged fallopian tubes. Today, it is a highly effective treatment for most causes of infertility. Many factors contribute to infertility in both men and women.

- 1/3 of cases, the cause of infertility involves only the male
- 1/3 of cases, the cause of infertility involves only the female
- 1/3 of cases, the cause of infertility involves both the male and female, or no cause can be identified

WHY IVF

When a man or a woman is affected by infertility, In-Vitro Fertilization (IVF) may be an option for conceiving.

With IVF, the doctor uses a needle to remove eggs from the ovary, which are combined with sperm in a petri dish and placed in an incubator, When fertilization occurs, the fertilized eggs are then transferred to the uterus.

As we age, the infertility rate increases. No matter where the problem occurs, the heartbreak of infertility can be devastating. Some couples are never able to conceive or carry a pregnancy to term.

WHO CAN BENEFIT FROM IVF?

The ideal IVF candidate is in overall good health. Beyond that basic requirement, it's really a question of your individual situation. The good news here is that IVF is effective in treating many, many different causes of infertility. It's often a good option for:

- Couples who have been trying to conceive for more than 6 months.
- Women who have been unsuccessful with other fertility treatments, including fertility medications and IUI (intrauterine insemination).
- People suffering from most types of infertility, including: Tubal factor infertility, Endometriosis, Polycystic Ovarian Syndrome (PCOS),Male factor infertility,Unhealthy eggs or sperm or the inability to carry a pregnancy.

IVF PROCEDURE

IVF involves several steps — ovarian stimulation, egg retrieval, sperm retrieval, fertilization and embryo transfer. One cycle of IVF can take about two to three weeks. More than one cycle may be needed.

OVULATION INDUCTION

The start of an IVF cycle begins by using synthetic hormones to stimulate the ovaries to produce multiple eggs — rather than the single egg that typically develops each month. Multiple eggs are needed because some eggs won't fertilize or develop normally after fertilization.

Several different medications may be used, such as: Medications for ovarian stimulation, Medications to prepare the lining of your uterus, Medications for oocyte maturation, Medications to prevent premature ovulation.

EGG RETRIEVAL

Egg retrieval can be done in your doctor's office or a clinic 34 to 36 hours after the final injection and before ovulation.

SPERM RETRIEVAL

Partner's sperm, a semen sample needs to be provided at your doctor's office or clinic the morning of egg retrieval. Typically, the semen sample is collected through masturbation. Other methods, such as testicular aspiration — the use of a needle or surgical procedure to extract sperm directly from the testicle — are sometimes required. Donor sperm also can be used. Sperm are separated from the semen

FERTILIZATION

Fertilization can be attempted using two common methods:

Conventional insemination: During conventional insemination, healthy sperm and mature eggs are mixed and incubated overnight.

Intracytoplasmic sperm injection (ICSI). In ICSI, a single healthy sperm is injected directly into each mature egg. ICSI is often used when semen quality or number is a problem or if fertilization attempts during prior IVF cycles failed.

If successful, an embryo will implant in the lining of your uterus about six to 10 days after egg retrieval. After the embryo transfer, you can resume your usual daily activities. However, your ovaries may still be enlarged. Consider avoiding vigorous activity, which could cause discomfort.

RESULTS

About 12 days to two weeks after egg retrieval, your doctor will test a sample of your blood to detect whether you're pregnant.

IVF PROCESS

01 Consultation with Doctor

02 Blood Tests and Scans

03 Semen Analysis

04 Stimulation & Monitoring

05 Trigger Injection

06 Egg & Sperm Collection

07 Fertilisation and Embryo Development

08 Embryo Transfer

09 Pregnancy Test

The IVF treatment takes approxmately 6 weeks.

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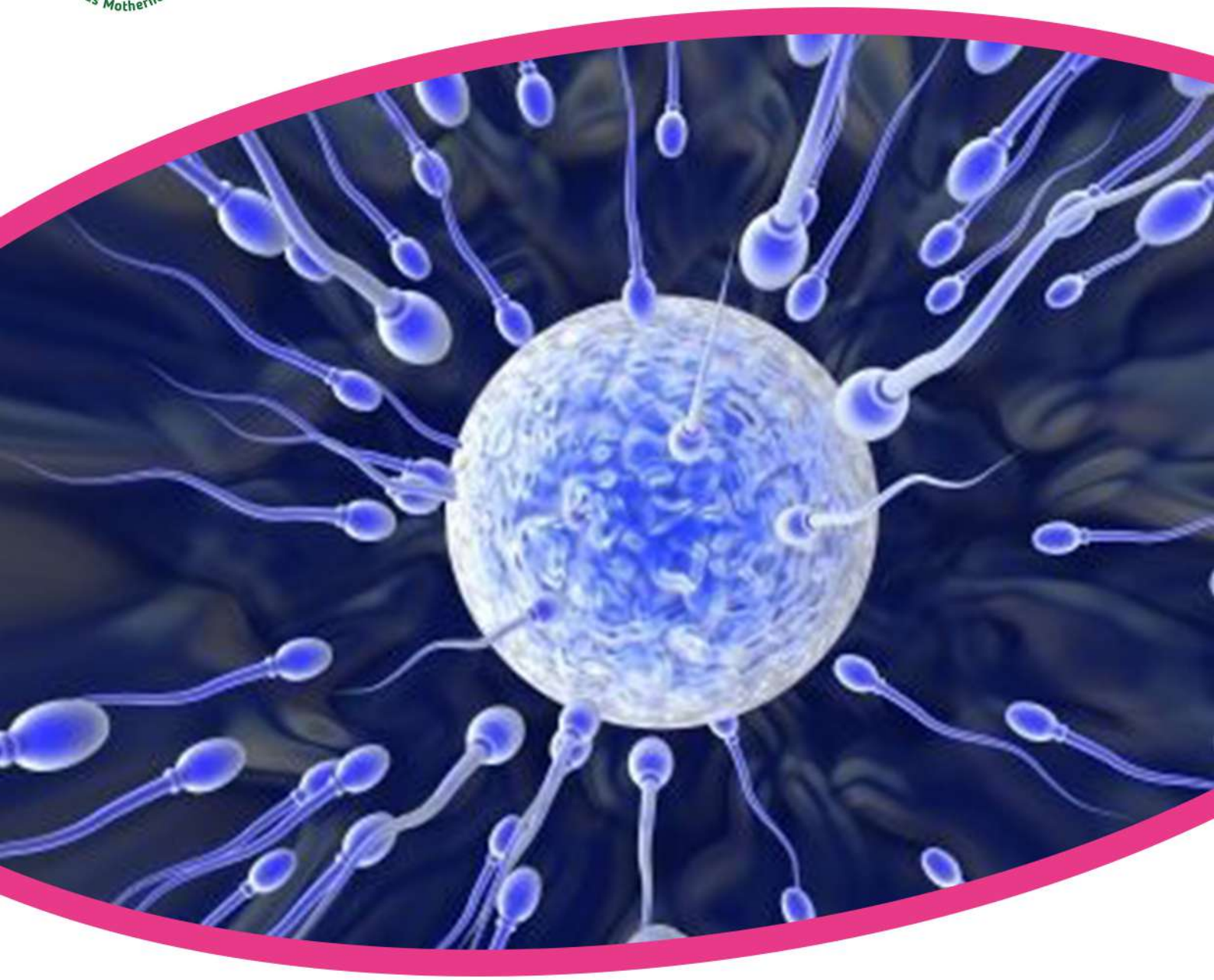

FERTILITY EVALUATION

at Janisthaa Fertility Centre & Hospital

INTRODUCTION

An infertility evaluation consists of exams and tests to determine the reason for your infertility. Treatment may be possible if a cause is identified. Many cases of infertility can be successfully treated even without a cause being found. Both partners' medical and sexual histories are included in a standard fertility evaluation. Men undergo a semen analysis to determine the number of sperm and the movement and structure of the sperm.

In the case of women, we check to see if they are ovulating. Ovulation can be detected and monitored through blood tests detecting hormones, ultrasound exams of the ovaries,

WHY FERTILITY EVALUATION?

It is recommended that you seek an infertility evaluation if you have not gotten pregnant after one year of regular sexual intercourse without using birth control. You should get an evaluation after 6 months of trying if you are older than 35.

WHO CAN BENEFIT FROM IVF?

Both Men & Women. If you're a couple unable to conceive despite one year of regular sexual intercourse without using birth control, a fertility evaluation will immensely benefit you. It will help you identify the root cause of not achieving parenthood. Once you know the why, appropriate measures can be taken.

FERTILITY PROCEDURE

Men and women undergo a complete medical examination and a series of tests to determine the primary factors contributing to infertility. Through an infertility evaluation, the patient's doctor can more accurately diagnose the patient, and from there, develop a treatment plan that will hopefully result in conception.

The first step in diagnosing male infertility is to analyze semen. Sperm count, mobility, and quality can be determined by this test. Additionally, a urologic examination may be recommended if we detect any abnormalities with the bladder, kidneys, or scrotum.
Specific fertility tests may include:

- Semen Analysis
- Hormone Testing
- Genetic Testing
- Testicular Biopsy
- Imaging

Fertility evaluations take a woman's age into account. As a woman ages, her eggs become fewer and fewer in quantity and quality, especially after the prime reproductive period. Our evaluation will include tests and exams to determine your basal body temperature, hormone levels, and ovarian reserve. The presence of fibroids or cysts in the uterus may also prevent you from becoming pregnant.

The exam can include:

- **Urine test**
- **Hormone level test**
- **Thyroid function test**
- **Ultrasound**
- **Laparoscopy**
- **Hysteroscopy**

RESULTS

It may not be necessary for you to undergo all of these tests. Ask your doctor which ones are best for you. With the tests done, about 50% of couples know why they're having trouble getting pregnant.

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OVULATION INDUCTION & FOLLICULAR MONITORING

at Janisthaa Fertility Centre & Hospital

INTRODUCTION

OVULATION INDUCTION & FOLLICULAR MONITORING

Women who do not ovulate regularly will find that ovulation induction is greatly helpful. Regularizing ovulation is the goal of the procedure. It is one of the various kinds of treatment to induce ovulation for eggs to mature and be released in the ovaries to match timed intercourse or artificial insemination. In follicular monitoring, a doctor monitors the development of the follicle from the start of the cycle until it releases an egg. IVF assessment and timing depend on it.

WHY OVULATION INDUCTION & FOLLICULAR MONITORING

It Is one of the effective methods for treatment of conditions such as unexplained infertility, PCOS, endometriosis & ovarian dysfunction. It has a high success rate - typically 6-8% per cycle depending on a woman's age, diagnosis & duration of infertility. It is one of the simplest, most natural & least invasive treatments. In order to determine whether the treatment is working, follicular monitoring is necessary.

WHO CAN BENEFIT FROM IT?

It can be administered to women who face the following conditions – Oligoovulation – women with infrequent ovulation, anovulation – women who do not ovulate at all, unexplained infertility, patients undergoing IVF, etc.

OVULATION INDUCTION & FOLLICULAR MONITORING PROCEDURE

ASSESSMENT

prior to the treatment, the ovulation cycle is assessed to check the various levels of hormones present such as thyroid, prolactin, FSH, LH, testosterone, and other male androgens through a blood test. The womb, ovaries, development of follicles and thickness of the uterus lining are also assessed with the help of ultrasound.

STIMULATION

depending on the condition assessed previously, medications are then prescribed to help the growth of follicles containing eggs for them to mature and be released.

MONITORING

during this course of treatment, regular check-ups to monitor the growth of number and size of follicles developing.

TIMED INTERCOURSE

at the time of ovulation, patients are then advised to have intercourse for a successful pregnancy.

RESULTS

The success of the procedure depends on the woman's diagnosis & other factors, including her age. Generally, we achieve a pregnancy success rate of 6-8 percent per cycle. It's also important to point out that young, healthy couples with no fertility issues have about a 20% chance of becoming pregnant each month.

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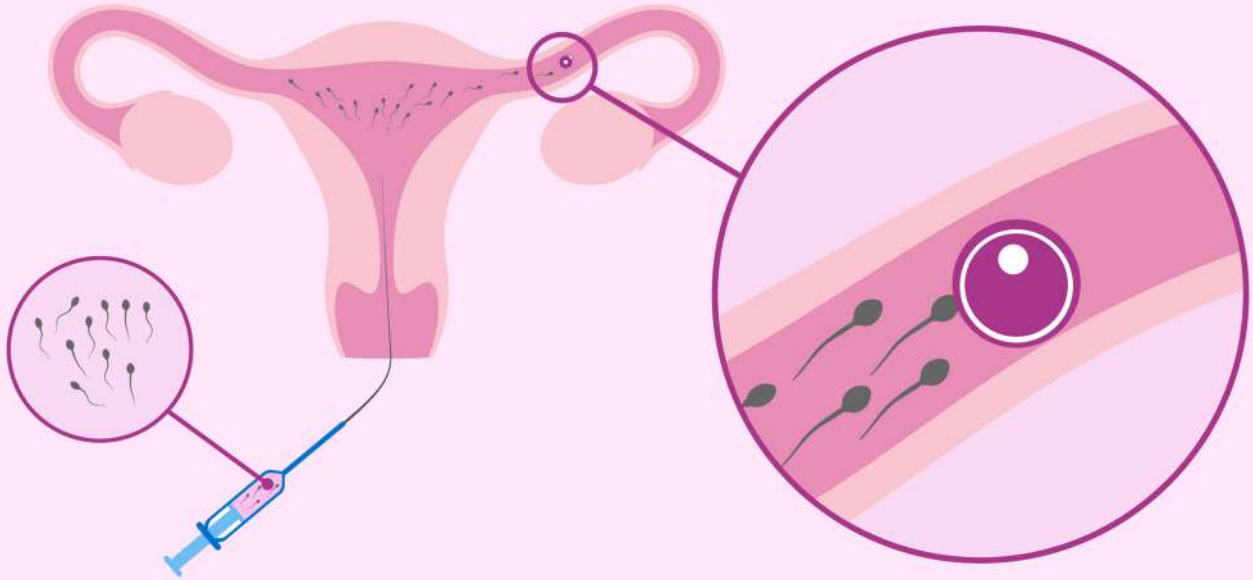


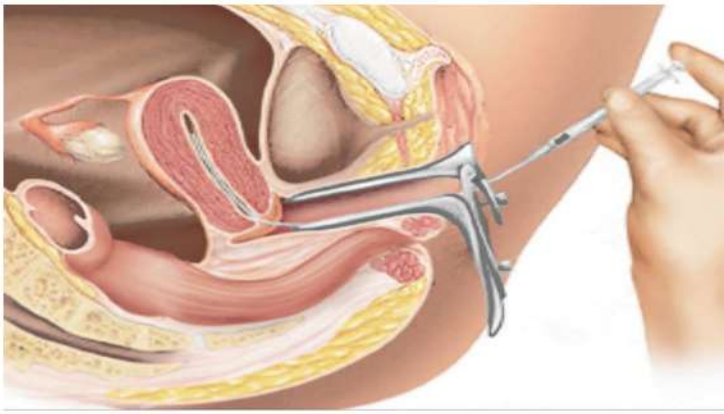
IUI (Intrauterine Insemination)

at Janisthaa Fertility Centre & Hospital

INTRODUCTION

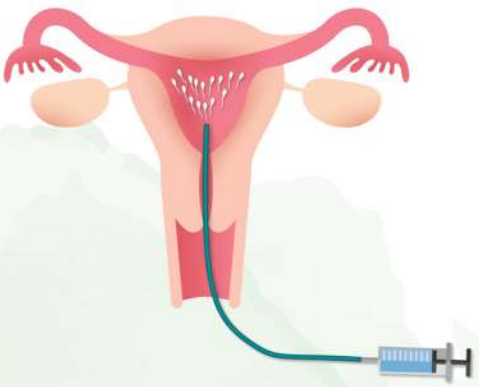
IUI (Intrauterine Insemination)

A type of artificial insemination, intrauterine insemination (IUI) is used to treat infertility. A concentrated sperm that has been washed and concentrated is placed directly inside your uterus around the time your ovary releases one or more eggs for fertilization. It is a simple, safe, affordable procedure with a considerable amount of success rate. Also known as Donor Insemination, Alternative Insemination, or Artificial Insemination, it is at times used during complications associated with female infertility.



WHY IUI

It is less expensive when compared to the In-Vitro Fertilization(IVF) technique. IUI has a high pregnancy rate wherein certain fertility-enhancing drugs are also prescribed before the treatment to facilitate the success of the procedure. It is less invasive when compared to the In-Vitro Fertilization technique. It also takes less time & involves very minimal discomfort.



WHO CAN BENEFIT FROM IUI?

The method is recommended for people who have had difficulty conceiving naturally. For couples younger than 35, this entails unprotected sex for at least a year. Over 35 couples may benefit from IUI if they have had unprotected sex for a period of six months.

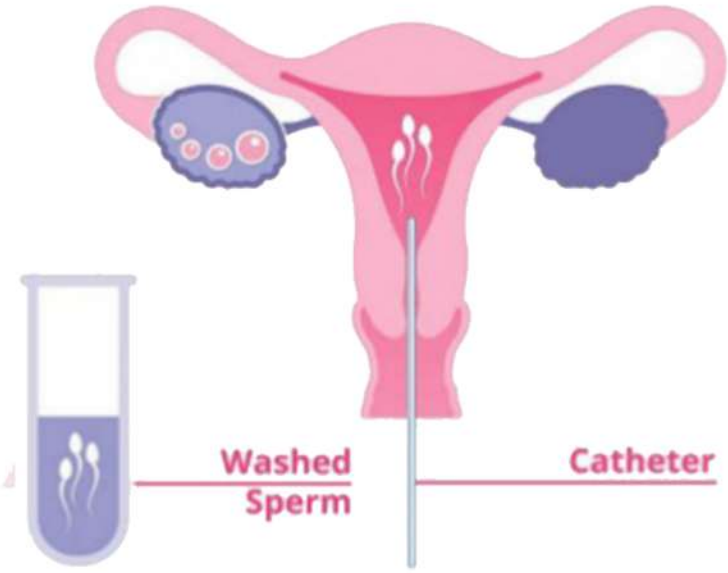
Candidates for IUI should be in good general health and not be suffering from health problems that would adversely affect their overall wellness.

IUI PROCEDURE

IUI is employed by inserting the semen directly into the uterus of the woman. Before insertion, the semen is separated from seminal fluid, through a process called Sperm Washing. It is then directly inserted into a woman's uterus/cervix/fallopian tube with the help of a catheter to facilitate fertilization.

It ensures that an increased number of sperms reach the fallopian tube and thereby enhancing the chances of fertilization. It is used in cases of ejaculation dysfunction, unexplained fertility, hostile cervical condition including cervical mucus problems, cervical scar tissue from past procedures, etc.

Before the treatment, ovulation stimulating medication may be used to increase the chances of fertilization. The procedure is then performed at the time of ovulation, which is indicated by a surge in LH hormones before the cycle.



RESULTS

The success rate is 10-15% for the procedure depends on several factors, which include age & underlying fertility challenges.

A short time after insemination, you should lay on your back. Once the procedure is completed, you can get dressed and resume your normal daily activities. It is possible to experience light spotting for up to a day after the procedure. Before taking a home pregnancy test, wait two weeks. Testing too soon could produce a result that is - false negative or false positive.

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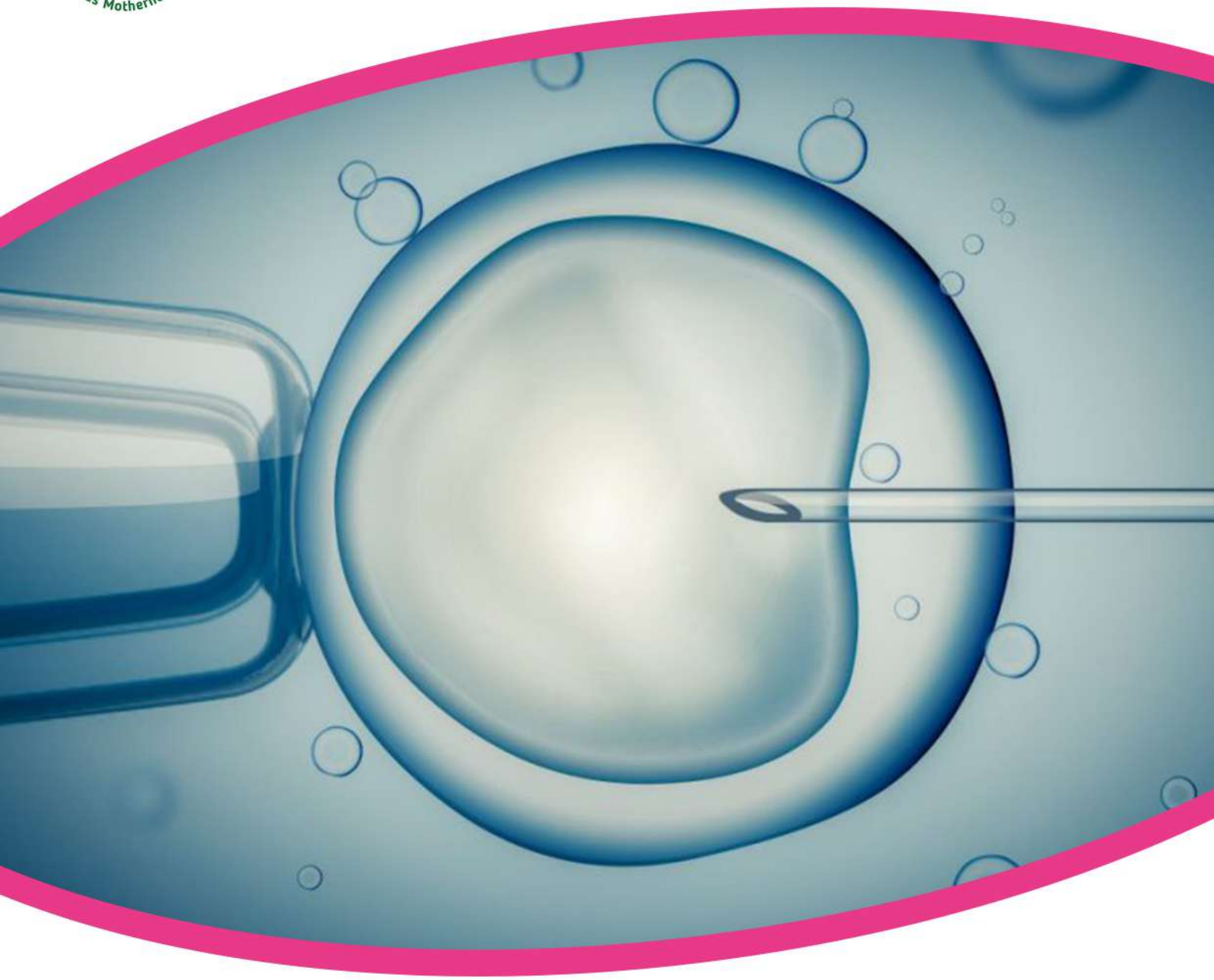


ICSI (Intracytoplasmic Sperm Injection)

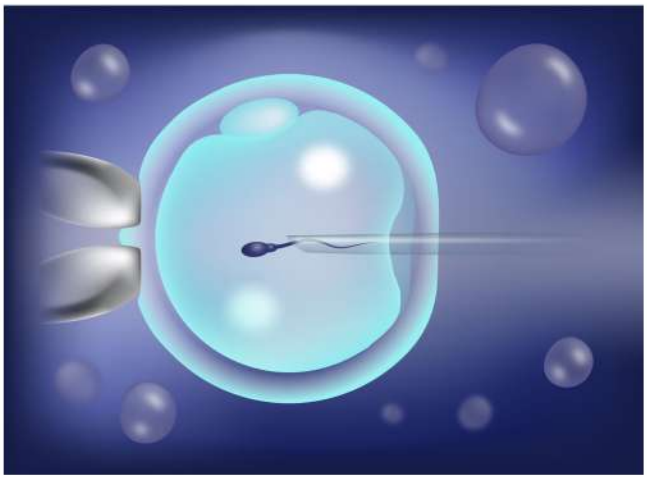
at Janisthaa Fertility Centre & Hospital

INTRODUCTION

ICSI (Intracytoplasmic Sperm Injection)

ICSI is also an **Assisted Reproductive Technique** that is used in cases of male infertility along with IVF. Some even consider it to be a specialized IVF. In IVF, the egg and the sperm are fertilized outside the womb and inserted into the uterus.

But to improve the chances of fertilization, especially when the sperm count is low, ICSI can be used. The success rates of ICSI are known to be the same as IVF as both are used in tandem.



WHY ICSI

As compared with traditional IVF, ICIS appears to be more successful at helping men who are experiencing male infertility become parents. Some clinics offer ICSI for all infertility patients, regardless of their diagnosis. In the ICSI method, a single sperm is directly injected into a single egg.

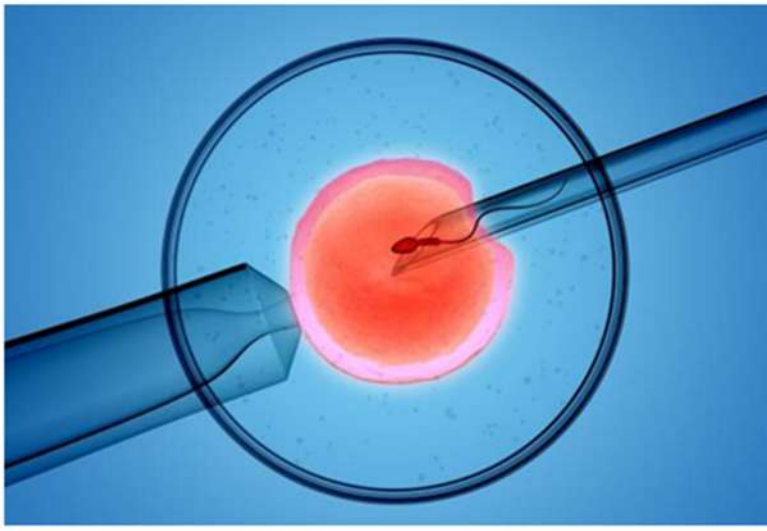
WHO CAN BENEFIT FROM ICSI?

ICSI is usually performed in the following cases of male infertility:

- Where the Sperm Count is said to be low.
- Low Sperm Morphology – i.e, defect in the anatomy of the sperm.
- Low Motility – i.e, in cases where the sperm movement is not normal or moves in other ways.
- Where anti-sperm antibodies are found to be high in the semen.
- Or if the patient has previously undergone Vasectomy & Vasectomy reversal has been unsuccessful
- Infectious diseases or infertility caused by immune factors
- Retrograde ejaculation
- Repeated IVF Failures

ICSI PROCEDURE

ICSI is a procedure that is conducted in laboratories. Here, a single sperm is chosen with the help of a fine glass needle, and the same is injected into the cytoplasm of the egg. This increases the chances of fertilization better than IVF, where a number of sperms are required to fertilize the egg. In the case of ICSI, the sperm is already inserted into the egg, thus negating the chances of penetration which is achieved by the technique.



Before this technique is carried out, stimulation of the ovaries to ensure the maturation of the eggs is also important. Here a large number of oocytes are produced rather than a single egg with the help of medications, which is similar to IVF.
Once the eggs are matured, it has to be retrieved for fertilization with the sperm outside the womb. This procedure is called Follicular Puncture and is done in the laboratory where the matured follicles are collected.

With the matured follicles and best quality sperms selected, ICSI is carried out. The embryos are allowed to be fertilized and cultured in the lab for 3 to 5 days. Once the eggs are fertilized and the embryo is cultured, it is then transferred back into the uterus with the help of a cannula for the embryo to implant itself against the uterus lining for further development. The embryos that are left are vitrified to be used in later cycles avoiding ovarian stimulation.

RESULTS

Your healthcare provider monitors your fertilized egg in the laboratory for signs of successful fertilization following ICSI. It should take a healthy fertilized egg five to six days to divide into cells and form a blastocyst. In order to determine whether you are likely to become pregnant from a blastocyst, your healthcare provider will analyze the blastocyst's size and the cell mass.
The success rate is approximately around 60-65%.

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CRYOPRESERVATION

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EMBRYO BIOPSY

at Janisthaa Fertility Centre & Hospital

INTRODUCTION

CRYOPRESERVATION

The process of cryopreservation involves freezing eggs, sperm, or embryos at sub-zero temperatures for later use. A fertilized egg, sperm, or an embryo is thawed and used in a fertility treatment cycle when needed. Sperm is used for intrauterine insemination (IUI) and in vitro fertilization (IVF). When it comes to procedures associated with IVF, eggs, and embryos are used.

Cells that have been frozen can be preserved for a long time through cryopreservation. While the cells are frozen, all biological activity ceases until they are thawed.

WHY CRYOPRESERVATION

Embryo freezing can help people get pregnant later in life if they are facing current barriers, such as:
Advancing age.
Gender transition.
Infertility issues.
Social/personal reasons like if you're pursuing higher-level education or have professional demands and plan to delay pregnancy for several years.
Treatment that may damage fertility (for example, chemotherapy or pelvic radiation therapy for cancer).
Upcoming military deployment.
Women without a partner may be concerned about advancing age and choose to either freeze eggs or embryos that they create with donor sperm.

Freezing embryos is a personal decision. Treatment costs vary widely, and medical insurance doesn't always cover fertility treatments. Consider your goals, the costs, ethical issues, your partner's preferences, and other factors.

WHO CAN BENEFIT FROM IVF?

Cryopreservation may be a better choice for some groups, such as:

- A person with a genetic disorder that affects reproduction.
- Those who are about to undergo chemotherapy.
- People who take fertility-altering medications.
- Same-sex couples and LGBTQ+ people who want children.
- It may also be beneficial for people approaching reproductive age and not yet ready to have children to freeze embryos.

CRYOPRESERVATION PROCEDURE

Vitrification and slow freezing are the two methods of freezing embryos.
In vitrification, fertility professionals:

- To protect the embryos, add a cryoprotective agent (CPA). It acts like antifreeze and protects cells from ice crystals.
- Place the embryos immediately into liquid nitrogen tanks at -321° Fahrenheit (-196.1° Celsius).

Although slow freezing has fallen out of favor, some fertility specialists still use it. During slow freezing, fertility specialists:

- A cryoprotective agent (CPA) is used in smaller amounts than in vitrification.
- Cool the embryos in a machine for about two hours, slowly lowering their temperature.
- Remove the embryos from the cooler and store them in liquid nitrogen tanks at -321° Fahrenheit (-196.1° Celsius).

In either process, the embryos are as follows:

- Stored in containers that look like small straws.
- They are labeled with details that identify them as yours.

The embryos remain at their biological age when frozen. The embryo has not aged if you freeze it at 35 and then use it at 50.

Fertility specialists will perform the following steps if frozen embryos are needed later on:

- Remove the embryos from the liquid nitrogen.
- Let them slowly return to normal temperature.
- Remove CPA by soaking them.
- Use the embryos as indicated.

RESULTS

When an embryo is thawed and implanted into a woman's uterus, it is known as a frozen embryo transfer. The process is often successful. However, success rates vary widely depending on a variety of factors.

- The overall health of both parents.
- Age of the mother at the time of egg retrieval.
- Existence of fertility conditions, such as endometriosis, fibroids, or uterine polyps.
- Previous success or failure with fertility treatments.

Our goal is to help you identify factors that may impact your chances of success.

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HYSTEROSCOPY (DIAGNOSTIC & THERAPEUTIC)

at Janisthaa Fertility Centre & Hospital

INTRODUCTION

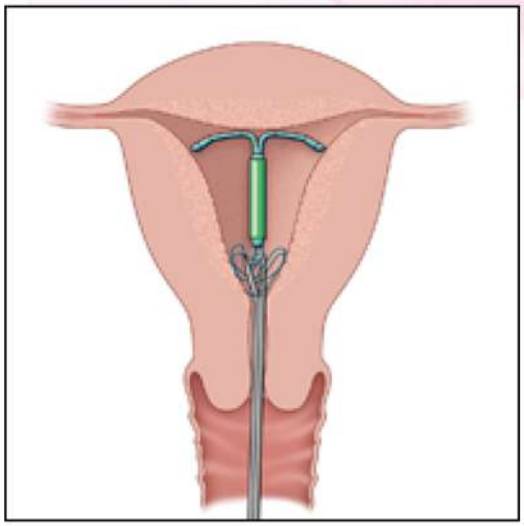
HYSTEROSCOPY (DIAGNOSTIC & THERAPEUTIC)

A **hysteroscopy** is a procedure that examines the inside of the womb.
A hysteroscope, which is a narrow telescope with a light and camera, is used for the procedure. The images are sent to a monitor so that your doctor or specialist nurse can take a look inside your womb.
Hysteroscopes are passed into your womb through your vagina and cervix, so no cuts are required.
In case if the problems remain unsolved then it may lead to IVF failures.

WHY HYSTEROSCOPY

There are several benefits associated with hysteroscopy:

- Examine symptoms or problems such as heavy periods, unusual vaginal bleeding, postmenopausal bleeding, pelvic pain, and repeated miscarriages.
- Diagnose fibroids and polyps (non-cancerous growths in the womb).
- Treat fibroids, polyps, displaced IUDs, and intrauterine adhesions (scar tissue resulting in absent periods and reduced fertility).



WHO CAN BENEFIT FROM IT?

You may need a hysterectomy if you're having heavy menstrual periods or severe cramping, or if your doctor has questions concerning your reproductive health. They will be able to observe your cervix and uterus up close and find out what's causing problems.

It is also recommended under the following conditions:

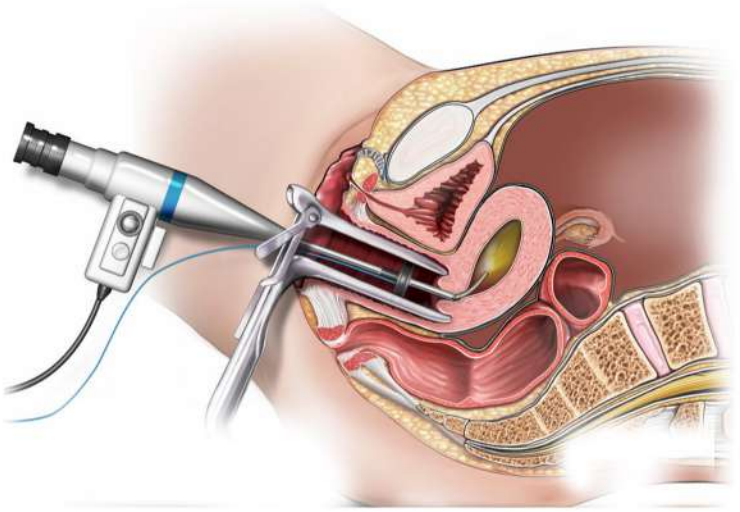
- Your Pap test results are abnormal.
- You've been bleeding after menopause.
- There are fibroids, polyps, or scarring on your uterus.
- You've had more than one miscarriage or problems getting pregnant.
- Your doctor needs a small tissue sample (biopsy) of the lining of your uterus.
- You're having a sterilization procedure as a permanent form of birth control.

HYSTEROSCOPY PROCEDURE

A hysteroscopy generally takes between 5 and 30 minutes. Here's how it works:

- You lie on a couch with your legs supported by supports, and a sheet covers your lower half.
- Your vagina may be held open with a speculum (the same instrument used for a cervical screening test), but it is not always necessary.
- An antiseptic solution is used to clean the vagina and cervix.
- A hysteroscope (a long, thin tube with a light and camera) is inserted into your womb - you may experience discomfort or cramping as it passes through your cervix.
- To make it easier for your doctor to see inside the womb, fluid is gently pumped into the womb.
- The camera shoots images to a monitor so your doctor or specialist nurse can spot any abnormalities.

During the procedure, at any point, if you feel uncomfortable, tell the doctor or nurse. They will stop it anytime.



RESULTS

After a hysteroscopy, you will probably be able to go home shortly, but you might have to stay a few hours in the hospital if you had a general anesthetic. You will discuss the results of the biopsy with your doctor before you leave, though it may take a few weeks for the results to come back.

If no anesthetic is used or only local anesthetic is used, you can usually return to your normal activities later that day. Following a general anesthetic, you may need to take things easy for a day or two.

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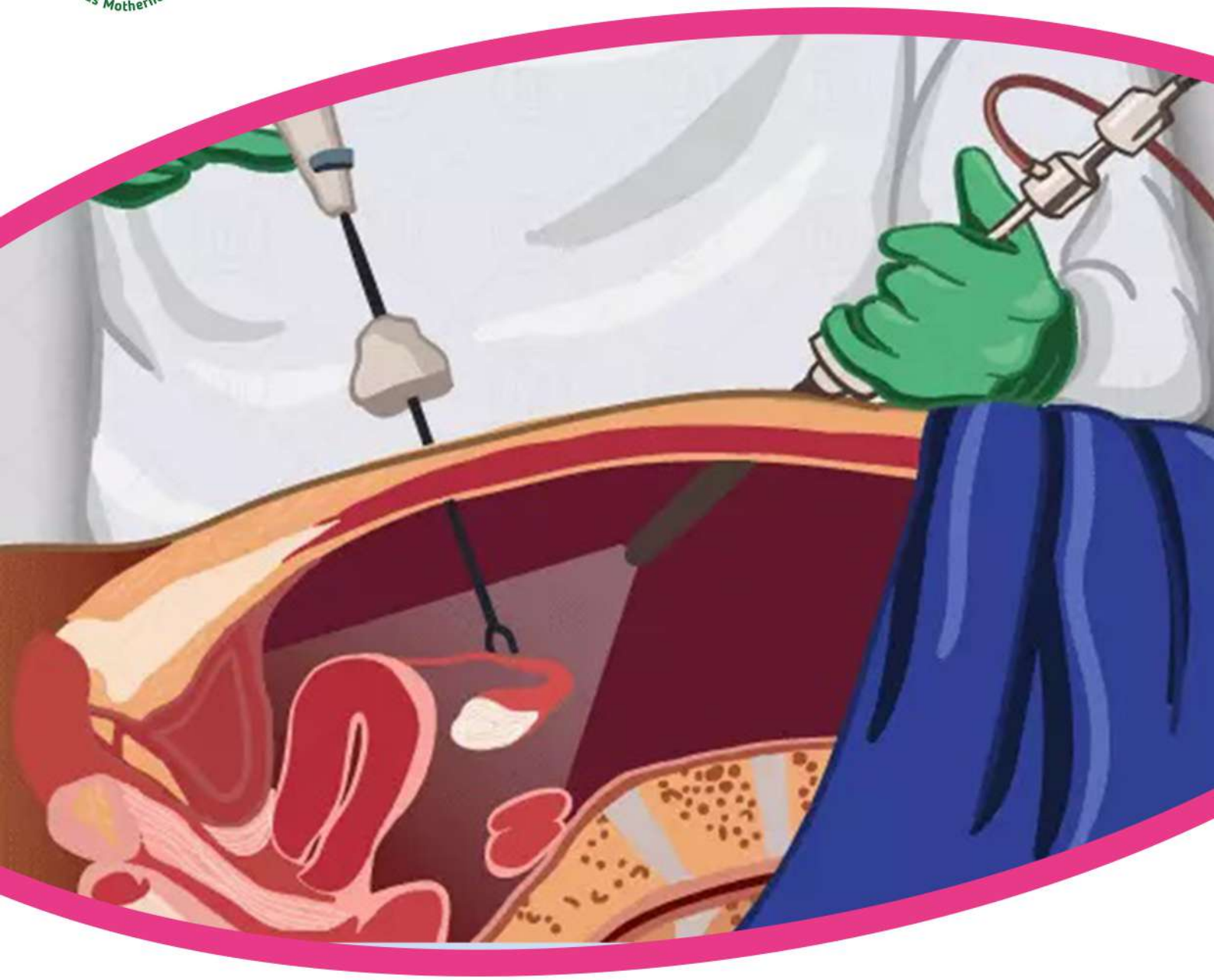


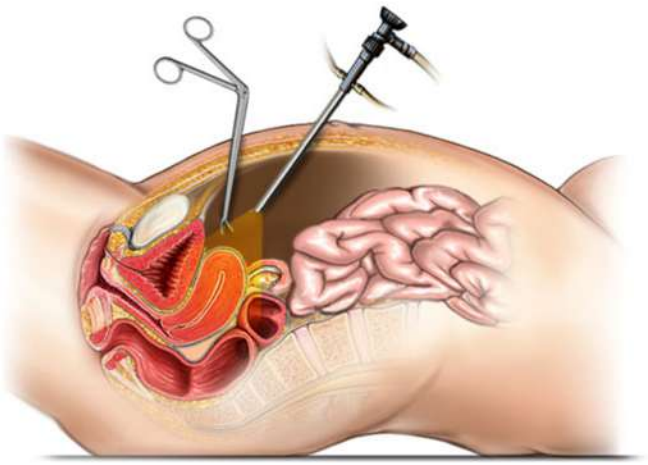
LAPAROSCOPY (DIAGNOSTIC & THERAPEUTIC)

at Janisthaa Fertility Centre & Hospital

INTRODUCTION

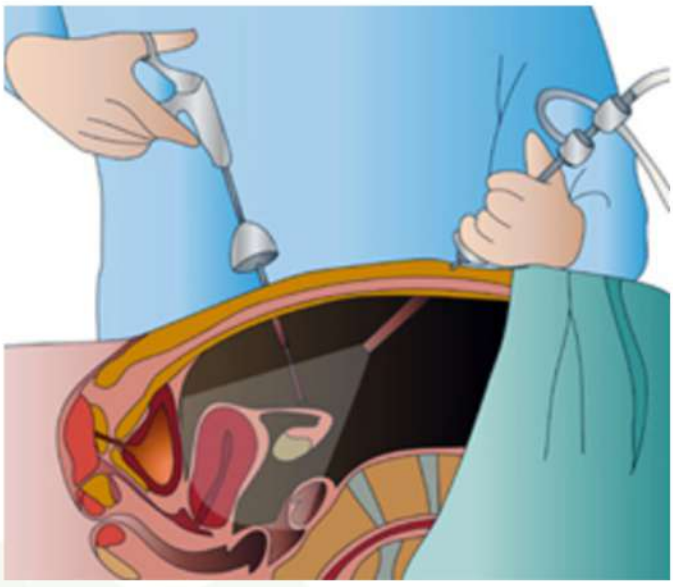
LAPAROSCOPY (DIAGNOSTIC & THERAPEUTIC)

Laparoscopy is a surgical procedure that is carried out for diagnosis and as a treatment for several conditions. It is a procedure that helps the physician to get a view of the internal organs like uterus ,Fallopian tubes & the ovaries. It is recommended when other diagnostic tools such as ultrasound or X-Ray do not yield clear results.



WHY IVF

It is one of the most effective methods of treatment in cases of unexplained fertility. It is less invasive & Involves smaller scars, a lower risk of infection & easy recovery compared to traditional surgery. Laparoscopy at Janisthaa is a very safe procedure performed under the supervision of experienced experts and state-of-the-art facilities. Laparoscopy is usually carried out to assess reasons for infertility, assess painful and heavy periods, as a diagnostic tool to take a biopsy & assess abdominal pain or pain in the pelvic region.



WHO CAN BENEFIT FROM LAPAROSCOPY?

Women who are unable to conceive often go for infertility treatment and laparoscopy is one method that may improve one's chances of getting pregnant. When other fertility tests have not provided a conclusive diagnosis of infertility, laparoscopy is usually performed. It is for this reason that laparoscopy is often performed on women who are unexplained infertility.

LAPAROSCOPY PROCEDURE

- Laparoscopy is conducted in a hospital set up under general anesthesia by a physician or a gynecologist.

- Small incisions or cuts are made in the pelvic or abdominal region that allows for the laparoscope to pass through. These are minor incisions and heal faster causing less pain compared to normal surgery. This is also called Keyhole surgery or Minimal Invasive surgery.

- A laparoscope or a thin tube that has a camera and light fixed at the end of the tube is then inserted in to obtain a view of the internal organs. To obtain a clearer picture of the organs, gas is pumped to inflate the region. A catheter can also be used that allows for clearer imaging of the organs.

- Once the diagnosis or treatment is done, the gas (carbon dioxide) is removed the patient can return home in a few hours without any pain and a few stitches.

RESULTS

After surgery, your doctor will explain to you what options you have for becoming pregnant. Having fibroids removed or a fallopian tube repaired may make getting pregnant easier. It is also possible to become pregnant without further treatment when scar tissue is removed in the case of endometriosis or PID.