

What is IUI?

Intrauterine Insemination (IUI) is a fertility treatment procedure. In this, washed and concentrated sperms are deposited directly inside the female's uterus. This process helps eliminate the various barriers to the passage of sperms after natural, sexual intercourse. It increases the chances of pregnancy for couples who are unable to get pregnant.

When is IUI needed?

IUI is a beneficial procedure for couples under various circumstances.

If the male partner is facing any of the following:

- Subnormal semen parameters: low sperm count and motility
- Sexual dysfunction: impotence (erectile dysfunction), anejaculation (inability to ejaculate semen)

If the female partner is facing any of the following:

- Ovulatory dysfunction or anovulation
- Previous cervical surgery or infections
- Unexplained infertility
- Failure of Ovulation Induction
- Minimal endometriosis
- Cervical factor infertility

IUI is also recommended to:

- Couples with less than 5 years of infertility
- HIV discordant couples
- Same-sex couples
- Single parent

Who should not opt for IUI?

However, under some conditions, you cannot undergo the IUI procedure.

- Females with both fallopian tubes blocked
- Females with severe pelvic infection
- Males with less than 1 million sperm count in post semen wash

What is the procedure of IUI?

Once you and your partner have decided to go ahead with the IUI fertility procedure, there are a series of steps to follow. First, the woman's body needs to be readied before the insemination process. When that is over, the doctor can carry out the IUI procedure. IUI can be either done with the male partner's sperm or with donor sperm.

Preparing for the IUI Procedure:

Before the insemination process, the female partner needs to go through a few steps. IUI has to be done at the right time of the cycle to increase the chances of pregnancy.

- 1. First visit:** The female partner visits the clinic once her periods begin.
- 2. Ovulation Induction:** From the second or third day of the periods, they will put her on a tablet for inducing ovulation or egg release for the next 5 days with or without a combination of injections. It helps stimulate regular ovulation.
- 3. Ultrasound examination:** The next visit will be on day 11 or 12 of her cycle. The doctor will do an ultrasound to observe if she is ovulating. There may be a need for 2-3 sittings for the scans.
- 4. hCG injection:** Based on the results, the doctor will administer an hCG shot to trigger the final maturation of eggs.
- 5. IUI procedure:** . IUI can be done anytime between 0-36hrs after trigger. No role for double IUI

On the day of the IUI procedure:

For the final IUI procedure, both the male and female needs to be present at the clinic.

For the male partner:

- 1. Abstinence:** The male partner should go through an abstinence period of 2-5 days before giving the sperm sample.
- 2. Sperm sample:** On the day of the procedure, the male partner will provide his sperm sample for the insemination process. To optimise the outcome of the IUI procedure, it should be done within 90 minutes of collection.
- 3. Sperm washing:** Then, the semen sample is 'washed' to eliminate the excess liquid, dead and weak sperms, debris etc. The aim is to concentrate the healthiest and most motile sperms into a small volume. Sperm washing should be done between 30-60 minutes of collection.

For the Female Partner:

1. **Do not empty the bladder:** The female partner can relax until other processes are being carried out. She should not urinate as a full or semi-full bladder makes the IUI process smoother.
2. **Insemination:** Once sperm washing is done, IUI has to be performed as soon as possible without much delay. The doctor will insert the washed sperm into the uterine cavity using a fine catheter. It will increase the chances of the sperms reaching the released eggs and fertilising them. This procedure is quick and lasts less than a minute. The female may experience some minimal discomfort but not pain.

Post the IUI procedure:

1. **Medications:** The doctor will prescribe the female progesterone hormonal tablets to be taken from the second day after IUI for 15 days.
2. **Bed rest** for 15-20 mins increases the chances of pregnancy.
3. **Pregnancy test:** They will also give a date for the Beta HCG test, i.e., the pregnancy test.

When is the pregnancy test done?

After the IUI procedure is done, the doctor provides the date for the pregnancy test to the couple. But generally, the Beta HCG test or pregnancy test is done approximately 14 days after the procedure. The test results come within 24 hours.

What if the pregnancy test result is negative?

Do not lose hope if the test results are negative the first time. The doctor advises the couple regarding further course of action based on their cause of infertility and the age of both partners. But, generally, the IUI procedure can be repeated for 3-6 cycles.

What are the advantages of IUI?

There are many benefits of this fertility treatment.

- **First-line treatment:** IUI is the first form of invasive therapy. It falls between Ovulation Induction (OI) and In Vitro Fertilisation (IVF).
- **Simple and easy:** The IUI procedure is not complicated. For the entire procedure, there is no need for anaesthesia. The insemination process takes less than a minute and causes little or no discomfort.
- **Economical:** IUI is not that expensive compared to IVF. The cost of one IUI cycle is 10 times lesser than that of IVF.
- **Less invasive:** There is no involvement of anaesthesia, ovum-pick up, or embryo transfer. On the day of the procedure, a thin catheter will be inserted inside the vagina to transfer the washed sperm.
- **Lesser complications:** There are no major known complications associated with IUI. Even if there are any, they are related to the process of Ovulation Induction. Hence, it is less stressful for the couple unlike with IVF.
- **Good compliance:** The entire procedure of IUI does not take that long and you can easily manage it. There are not too many clinic visits, steps and complications. Hence, it is easier for the couple to make time for it.
- **Minimal infrastructure:** For performing IUI, there is no need for exhaustive equipment and infrastructure. It has basic requirements which are there in the clinic labs.

What are the risks involved with IUI?

IUI does not lead to many complications. Even the below-mentioned points are rare.

Infection: During the procedure, because of inserting an IUI catheter, there is slight risk of local vaginal or cervical infection. However, it is a rare instance.

Spotting: Sometimes the process of placing the catheter in the uterus causes a small amount of vaginal bleeding. Usually, it does not have an effect on the chance of pregnancy.

Multiple pregnancy: Although the IUI procedure is not associated with an increased risk of a multiple pregnancy, still the use of ovulation-inducing medications increase its risk significantly. Multiple pregnancies have more complications than a single pregnancy such as early labour and low birth weight.

When is donor sperm needed?

If the male partner is having any of the following conditions, donor sperm may be required for IUI.

- Having severe low sperm count
 - Having absent sperms in semen, leading to difficulty in extracting the sperms
 - Undergoing radiation or chemotherapy for cancer
 - Carrying a genetic defect that he would not want to pass on to his children
- Donor sperms are also needed if the pregnancy is planned by:
- A single woman
 - A same-sex couple

How to find a sperm donor?

Fertility clinics usually have a tie-up with sperm banks. The doctor will guide the couple further in this matter and explain how to choose a donor sperm.

How to choose a sperm donor?

There are several characteristics of the donor that are revealed to the recipient's family. However, the identity of the sperm donor is not revealed. Based on the below-mentioned criteria, the couple can take a call.

- Donor ID
- Age
- Marital Status
- Education of the donor and his spouse
- Occupation
- Religion
- Medical history of the donor
- Donor's family history of diseases
- History of abnormalities in the biological child of the donor
- Physical features of the donor
- The ethnicity of the donor

What is the success rate of IUI?

The pregnancy rate with each cycle of IUI is between 10% to 20%. It will differ with every couple depending on a combination of a number of factors that include:

- Age- female more than 35 and male more than 50years
- Duration of infertility
- Cause of infertility- cervical factor and ovulatory dysfunction better pregnancy rates
- Previous childbirth or not
- Male and female infertility alone or both
- Number of IUI cycles tried

What is the cost of IUI with your own sperm and with donor sperm?

In India, the average cost of one cycle of IUI ranges from INR 10-15000 across fertility clinics in different cities. Keep in mind that your expenditure will go up with the increase in the number of IUI cycles. The cost of donor IUI is slightly higher.

What are the other options if not IUI?

With every IUI cycle, the success rate tends to improve. Due to various reasons, it may or may not work for you. Your doctor will guide you about other fertility treatment options based on your situation. Some of the other options are:

- In Vitro Fertilisation (IVF)
- Intracytoplasmic Sperm Injection (ICSI)
- Surrogacy
- Adoption

