

INTRAUTERINE INSEMINATION

TOPICS

- What is Intrauterine Insemination?
- What are the benefits of IUI?
- Reasons for using IUI.



About this booklet

This series of booklets has been developed and written with the support of leading fertility clinics across Australia, and Access Australia — a national organization that provides numerous services for people having difficulty conceiving. We also acknowledge the many people who spoke openly about their own experiences with assisted conception in order to help others experiencing a similar journey. Merck Serono thanks the many individuals, couples and Australian Healthcare Professionals, including fertility specialists, specialist nurses and psychologists who shared their knowledge and expertise during the production of these booklets.

Important notice: The information provided in this booklet does not replace any of the information or advice provided by a medical practitioner and other members of your healthcare team. Your doctor will determine the best medications and course of action for you based on your requirements and conditions.

Prescription medicines have benefits and risks. Use all medications strictly as directed by your doctor and raise any questions or concerns with them before, during or after using prescribed medicines. If you experience side effects consult your doctor.

Full information regarding the medicines listed in this booklet, including how they are taken and side effects, is available from the Consumer Medicine Information (CMI) sheets. These can be found at the TGA website (www.tga.gov.au) for Australian residents and the medsafe website (www.medsafe.govt.nz) for New Zealand residents.

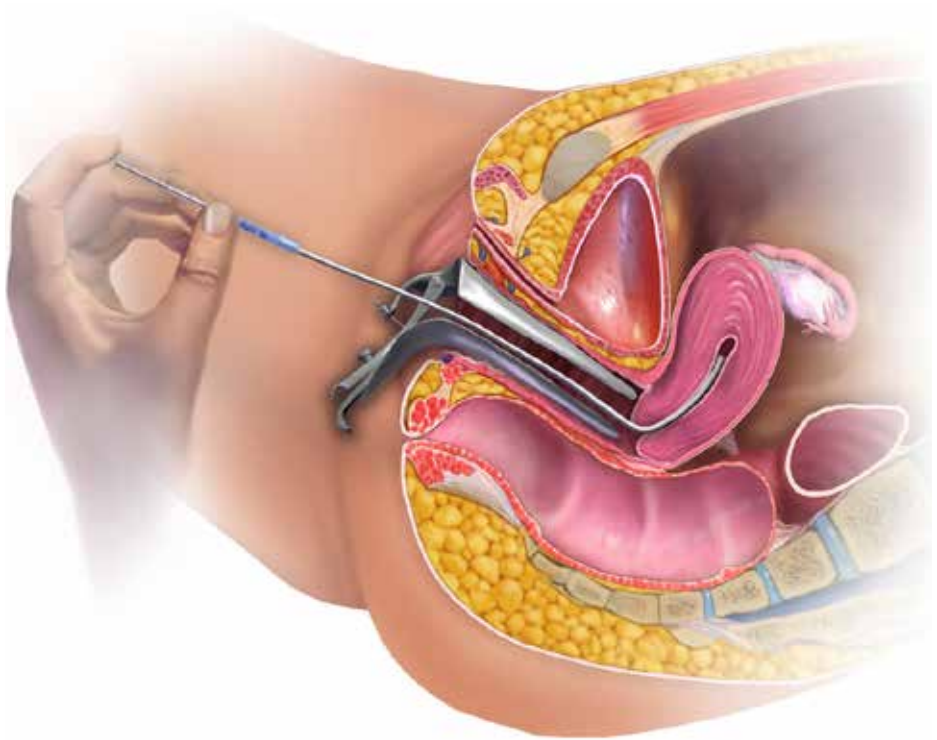
Medication availability and funding criteria may differ between Australia and New Zealand.

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What is Intrauterine Insemination?

Artificial Insemination (AI). This is the name given to a procedure where sperm are placed into the female reproductive system by a means other than intercourse. Intrauterine Insemination (IUI) is the most common form of AI used and involves placing sperm into the female's uterus through an assisted medical process. As it is a relatively low-tech solution to infertility problems, IUI is usually one of the first techniques used to assist a couple who is having difficulty becoming pregnant.



Injecting sperm into Uterus

Basic Procedure

In the procedure, warmed and 'washed' (treated) sperm are introduced into the woman's uterus through a tube. Sperm can be provided by the woman's husband or partner (Artificial Insemination by Husband – AIH) or sperm provided by a known or anonymous sperm donor (Artificial Insemination by Donor – AID or DI). The procedure is done around the time of ovulation to give the best chance of conception. Hormonal (Fertility) medications might be used in conjunction with the treatment to enhance conditions for a pregnancy.

What are the benefits?

During normal intercourse, only relatively small numbers of sperm make it to the woman's uterus and into the fallopian tubes where fertilisation takes place. IUI inserts large amounts of the best performing sperm directly into a woman's uterus thus increasing the chance of fertilisation.

When is IUI not suitable?

IUI is not effective when there is:

- A blocked or damaged fallopian tube.
- Ovarian failure (Menopause)
- Severe male factor Infertility, i.e. no sperm, very low sperm count, poor sperm motility (movement), sperm defects; in this case, donor sperm may be an option.
- Severe Endometriosis.
- A female partner over the age of 40.

Reasons for using IUI

IUI can be used to overcome fertility due to the following conditions:

Mild endometriosis: occurs when the tissue that normally lines the inside of the uterus grows in other places where it doesn't belong, such as on the ovaries and fallopian tubes.

Mucus 'hostility': may arise as a result of a vaginal infection or the presence of antisperm antibodies in the mucus.

Ovulation problems: including irregular or absent ovulation often caused by a deficiency in one of the controlling hormones.

Low sperm count: if sperm count is only a little low, it can still be used because of the way it will be treated in the laboratory.

Ejaculation problems: due to psychological problems such as impotence (inability to get and maintain an erection), or anatomic problems of the penis, such as paraplegia.

Retrograde ejaculation: the semen goes backward into the bladder instead of coming out of the penis.

Unexplained infertility: defined as not being able to conceive after one year, even though the cycle is normal, semen is normal, internal examinations are normal and there is normal sperm-mucus penetration. In about 10-15% of couples, a cause for infertility may not be found even after thorough investigation of both partners.

Physical problems with sexual intercourse: vaginismus is an involuntary clamping of the vaginal muscles, which may prevent some women from having frequent intercourse.

The risk of multiple pregnancies

Fertility medications can cause more than one follicle to develop and this is why your body will be monitored closely through blood tests and ultrasounds while you are taking them. If your doctor notices more than three maturing follicles on ultrasound prior to the procedure, the IUI may be cancelled for that treatment cycle. For those having trouble becoming pregnant, having twins may seem like a blessing, but complications, such as miscarriage and low birth weight, are much more common in twins than single pregnancies.

Getting the best results

There is more to intrauterine insemination than just performing the artificial insemination. A variety of factors can influence the success of an IUI cycle. Here is a look at some of them.

Timing

Timing is everything when it comes to IUI. Once an egg has been released from your ovaries, it only has 24 in which it can be fertilized. This means that insemination must coincide with a woman's ovulation.

Women doing a natural cycle of IUI will likely use home ovulation predictor kits to detect the LH surge that occurs shortly before ovulation. However, these tests can only tell you that ovulation is imminent, not precisely when it will happen.

In other instances, ovulation can be more certainly assumed if fertility drugs are being used, as these medications require more detailed monitoring of the ovaries and hormones.

Another reason why timing is so important in IUI is because sperm used in this procedure is washed. Normally, unprepared sperm can live for as long as five days in fertile cervical mucus. However, washed sperm is thought to live for no more than 24 hours, with six to 12 hours being the average.

Because washed sperm has such a short life span, performing IUI as close as possible to the time of ovulation will help increase the chances of success with this procedure.

Number of Cycles

Since the exact timing of ovulation can often be somewhat difficult to pinpoint, your fertility specialist may suggest performing a second IUI anywhere from 12 to 48 hours after the first insemination.

This can improve your chances of success by ensuring that sperm is placed in your uterus close to the time of ovulation. Some fertility doctors may even recommend you further boost your chances by having intercourse at home in between inseminations.

Sperm Count

The amount of active, healthy sperm in a man's semen sample is often one of the biggest influences on IUI success. Not surprisingly, the higher the sperm count, the more likely it is that the procedure will be successful.

However, there does not seem to be much difference in success rates between men with good-average sperm counts and men who have high sperm counts. In general, IUI done with a good-average to high sperm count carries a success rate between 15% and 20% per cycle.

Medication

While some couples will do IUI without the aid of fertility drugs, others will choose this option either out of necessity or to increase the number of egg follicle they develop in a cycle. Using medications can boost your chances of success, as there will presumably be more eggs available for fertilization, but it doesn't always guarantee success.

IUI success rate

Are you curious about intrauterine insemination (IUI) success rates or wondering if IUI could help you get pregnant? We have the latest information for you here.

Here is an estimate of your chances of pregnancy based on the number of IUI cycles you are willing to undergo:

- Women often have a 10 to 20 percent chance of getting pregnant with just one IUI cycle.

- The more cycles of IUI you undergo, the higher the chance is for a pregnancy. With 3 to 6 cycles of IUI, pregnancy rates can be as high as 80 percent.
- The pregnancy rate with IUI is similar to, or just slightly lower than, pregnancy rates of fertile couples that become pregnant on their own.
- Insemination success rates vary depending on a number of factors including:
 - A woman's age
 - Fallopian tube status (at least one open tube)
 - The sperm sample (In men with very low sperm counts - less than 5 million total motile sperm - IUI is generally not successful).

Note: If you are using frozen donor sperm, IUI can help to increase pregnancy success as compared to intravaginal insemination.

IUI success rates by age

Age affects fertility and age affects IUI success rates. As with most fertility procedures, IUI success is higher for younger women.

Here are the chances of pregnancy after one IUI cycle, by age:

- Under 35: 10 to 20 percent chance of pregnancy
- Between 35 to 40: 10 percent chance
- Women 40 and above: 2 to 5 percent chance

The good news is that most people that try IUI will have a good chance of becoming pregnant over time. However, you may need to be willing to try IUI multiple times. It may take between 3 to 6 IUI cycles before a pregnancy occurs. If you have tried IUI for 3 to 6 cycles and have not gotten pregnant yet, it is time to discuss other options with a fertility specialist (Reproductive Endocrinologist).

If you are over 35, you may want to talk to your doctor to see if In Vitro Fertilization (IVF) is a better first option for you. In women over 40, it may be best to move straight to IVF.

Fertility drugs linked to IUI success

Fertility drugs may help you conceive with IUI. Your doctor may prescribe clomiphene citrate (Clomid), Letrozole (Femara) or injectable medications such as follicle stimulating hormone (FSH) or human menopausal gonadotropin (hMG) before IUI. These medications may help stimulate ovulation. If you have tried IUI with Clomid or injectables for 3 to 6 cycles, and you have not gotten pregnant, discuss other options with your fertility specialist.

The IUI process

Proper timing and healthy sperm boost the chances of IUI success. Your healthcare provider will help you determine the correct time for the IUI procedure. Typically, IUI is performed just before you ovulate. You may be asked to use a home ovulation predictor kit (OPK) or come to the office for ultrasound monitoring to determine the best time for your IUI.

The IUI procedure is performed in a treatment room and is very similar to a Pap smear test. Following the IUI, you will be asked to rest for 10 to 15 minutes.

Sperm washing & IUI success

One of the secrets to IUI success is the specialized process of washing and preparing the sperm sample before insemination.

Here is how the IUI sperm washing process works:

- The weaker sperm are separated from the stronger, healthier sperm.
- The strong, healthy sperm are concentrated into a high volume in the insemination sample.
- Toxins are removed from the semen and sperm. These toxins may cause an allergic reaction in some women that can hinder pregnancy.

Looking for more information?

other booklets in the Pathways to Parenthood series are available at: www.nimaaya.com

- Endometriosis
- Overcoming male Infertility
- Female infertility & assisted reproductive technology (Art)
- Your step by step guide to treating Infertility
- Polycystic ovary syndrome (PCOS)
- Ovulation Induction (OI)
- Intra Uterine Insemination (IUI)
- In Vitro fertilisation (IVF) & Intra-cytoplasmic sperm injection (iCsi)
- Managing the stress of Infertility
- Intrauterine Insemination
- Laser assisted Hatching
- Male Infertility
- Oocyte Vitrification
- Semen Analysis
- Why Investigate for Infertility



How can you choose the right IVF centre?

Choosing the right fertility clinic is crucial to make sure that your dream of parenthood is on the right path. While every failed IVF cycle can be a major psychological and financial setback, the abundance of fertility clinics leads to confusion and frustration.

But do not lose hope. There are a few easy checks that any couple can do to help them find the fertility clinic that is right for them.

Facilities

Nimaaya has a full time Embryologist with a Masters in Clinical Embryology, armed with 10 years of intensive experience.

We believe in delivering the best and the latest technology at no added cost to our patients, who have the right to the best medical care, even if they don't live in the metros.

Services

Our centres provide treatment for all types of cases. Our Endoscopy department is capable of Endoscopic treatment of cases like Fibroids, endometriosis and Poly Cystic Ovaries.

Dr. Kishore Nadkarni is our Male Infertility specialist, with 30 years of experience in the field. We provide TESA, PESA and TESE for cases of Azoospermia (NIL SPERM).

Our centre is one of the most cost-effective centres in India with unparalleled success rates.