



Introduction

It may come as a surprise to most couples when they have trouble conceiving. Many people assume that a pregnancy will follow right after they stop using contraception, but the fact is that one in six couples in the world experience difficulties conceiving in the first 12 months of trying.

Today we have diagnostic and treatment options that can help you get pregnant. There are simple methods that can help you on your journey to having a baby, especially in the beginning. Intrauterine insemination (IUI) is a common procedure that has been used for many years; it works by bringing the sperm closer to the egg.

What is intrauterine insemination?

Intrauterine insemination (IUI) is the most commonly used form of artificial insemination. It's a relatively simple method, so it is usually one of the first ones used to help couples struggling with conception.

In this procedure, 'warmed' and 'washed' (treated in the laboratory) sperm are introduced into the woman's uterus through a thin tube – a catheter. Sperm can be provided by the woman's husband or partner, or sperm provided by an anonymous sperm donor can be used. The procedure is performed in the period around ovulation to maximise the chance of fertilising the egg.



What are the advantages of IUI?

During normal sexual intercourse, only a relatively small amount of sperm reaches the woman's uterus and fallopian tubes, where fertilisation occurs; this means they have to make a relatively long journey from the vagina to the fallopian tube, where the egg is fertilised.

With IUI, a large amount of sperm is placed directly into the woman's uterus, increasing the chances of fertilisation.

When is IUI used?

IUI is most often used when attempts to conceive naturally, or timed intercourse where a doctor recommends the best time for conception based on an ultrasound, fails.

However, IUI can also be used in situations where the semen analysis shows 'mild' pathology, particularly when sperm motility is reduced.

IUI can also be used to overcome infertility caused by the following conditions:

- ✓ Ovulation problems: including irregular or absent ovulation.
- Low sperm count: if the sperm count is only a little low, it can still be used for IUI, as it is processed in a laboratory, where a sample only containing sperm capable of fertilising an egg is prepared.
- Trouble with ejaculation: due to psychological problems such as impotence (inability to achieve and maintain an erection) or anatomical problems of the penis. This type of issue must be addressed with a doctor specialising in urology/andrology or sexology.
- Unexplained infertility: this is defined as the inability to conceive after one (half) year with a regular menstrual cycle, a normal sperm count test and no discovered cause of the infertility in either the woman or the man. In approximately 10-15% of couples, the cause of infertility may not be found even after thorough testing of both partners.
- Physical problems with intercourse: e.g. vaginismus, which makes intercourse very painful due to involuntary spasms of the muscles around the vagina. Anatomical abnormalities of the woman's external genitalia or vagina, or the man's genitalia, are another possible cause.

For couples who cannot have natural intercourse (e.g. due to a spinal cord injury).

When is this method not recommended?

IUI is not effective in the event of:

- a damaged fallopian tube
- ovarian failure (menopause)
- severe male factor infertility, i.e. no sperm, very low sperm count, very poor sperm motility, high number of defective sperm - however, in this case anonymous donor sperm can be used for IUI
- severe endometriosis

How long does IUI take?

The procedure itself only takes a few minutes and it is not painful. It doesn't require any special restrictions or lifestyle changes.

IUI is preceded by an ultrasound in the first half of the cycle (typically around day 10-12), in which the quality of the endometrium and the likely day/days of ovulation are determined.

On the day of the procedure, the partner donates his sperm, which is processed in our andrology laboratory, prepared for the catheter and then inserted into the uterine cavity. The procedure is performed in the lithotomy position (like in a regular gynaecological examination). The catheter is inserted through the cervix (entrance into the uterine cavity).



Are fertility drugs necessary for IUI?

Although it is quite common for the menstrual cycle to be carefully monitored, and sometimes fertility drugs are administered before an IUI cycle, this is not always necessary. Hormones natural to the female body (progesterone and oestrogen) are administered to regulate the cycle. For women with multiple

anovulatory cycles, a doctor can help induce ovulation with medication in the form of tablets (antioestrogens) or injections (gonadotropins) in the first half of the cycle.

No treatment or ovarian stimulation is necessary for women with a regular menstrual cycle and ovulation.

What to expect?

Ovulation tracking

Ovulation is tracked with a regular transvaginal ultrasound, in which the doctor monitors the growth of ovarian follicles, namely the places where the egg or eggs mature in the menstrual cycle. The quality of the endometrium also needs to be evaluated



2 Ovulation

Depending on your specific situation, the doctor may choose between two treatment methods:

IUI in a natural cycle

In women with a regular menstrual cycle, IUI is performed around day 12 to day 15 of the cycle, when ovulation most likely occurs – i.e. the release of the egg from the ovary and its journey through the fallopian tube, where fertilisation occurs in the first half of the cycle (i.e. before ovulation).

IUI in a cycle with drugs

Depending on your specific situation, your doctor may recommend taking hormones or other medications that can help you ovulate on your own. Your doctor may refer to this part of the treatment as 'ovarian stimulation', 'ovulation induction' or simply as a 'stimulated cycle'. You don't have to worry, these drugs are completely safe.

3 Sperm collection

IUI with partner sperm

On the day of insemination, the partner will be asked to provide a sperm sample by ejaculating into a sterile container. Two to three days of sexual abstinence before the semen collection is recommended. The clinic has facilities where the sample can be collected in private, but some men prefer to collect their sperm at home and deliver it to the clinic in person. The semen must be delivered the same day, and it should ideally be kept at body temperature throughout the entire transport, which should ideally not take longer than 2 hours.

IUI with anonymous donor sperm

IUI can also be performed with sperm from an anonymous donor. Artificial insemination with donor sperm is used when the partner either isn't producing sperm, or is only producing very poor quality sperm.

The sperm is always thawed before use, and the anonymous donor is thoroughly tested for genetic disorders and other diseases, including sexually transmitted diseases.

4 Sperm preparation

The sperm is prepared in the laboratory for the next stage. The cervix acts as a sperm filter, so only motile sperm can pass through it. In the IUI procedure, the sperm is 'washed' and filtered to remove all mucus and immotile sperm. In other words,

a concentrated solution containing the most active sperm is inserted into the semen.

Unwashed sperm must not be inserted into the uterus, as this may cause severe allergic reactions.

5 Insertion/transfer

Fresh or thawed sperm are transferred in the period around ovulation. If fresh sperm is used, you will be asked to return to the clinic one to two hours after the sperm sample is delivered for the transfer. This simple and technically straightforward procedure is performed without anaesthesia and is rather similar to a pap test with a comparable level of discomfort. An instrument called a speculum is inserted into the vagina to view the cervix. The narrow tube attached to a syringe is gently pushed through the

cervix into the uterus, and then the sperm is injected into the uterus.

This usually isn't painful, but sometimes you may experience mild cramping or feel discomfort. You will be asked to remain lying down for approximately 10-20 minutes, after which you will be able to return to your normal activities. With hormone stimulation, you may require an hCG trigger shot, which is usually injected at home – around seven days after the IUI procedure.

How to survive the two-week wait

After the IUI procedure, it will take about two weeks to get an accurate pregnancy test result. This 'two-week wait' is often a time of great anxiety, worry and frustration for women trying to conceive. Here are a few tips to help you manage this period:

- Try not to obsess over pregnancy symptoms feeling pregnant doesn't always mean you're pregnant. After treatment, your doctor may prescribe medication with side effects similar to pregnancy symptoms.
- Get busy this could mean doing more work or planning meaningful or fun distractions.
- Give yourself just 15 to 30 minutes a day to think about your pregnancy, write down your thoughts, search for information on the Internet, or discuss it with your partner or supportive friends/family members.
- Try some relaxation techniques, such as breathing exercises or meditation.
- Avoid pregnancy tests the chance of a positive result before your period is late is very small. An hCG shot is administered to help ripen and release the eggs, and it can also be used as a booster.

What should I expect after IUI?

You can continue your normal daily activities after IUI. Your fertility doctor may prescribe vaginal progesterone to use after IUI. Progesterone helps the body prepare for pregnancy and maintain it if it occurs.

A pregnancy test is usually taken about

3 weeks after the insemination, or when your normal period is late.

What are the possible side effects?

IUI is a method with very few risks and side effects. It is a very safe procedure.

Some common side effects of fertility drugs that patients may experience are:

Adverse effects

- Mild discomfort in the pelvis, such as aches or pains
- Tender breasts
- Nausea and vomiting

When you don't see two lines

It all depends on what you want and how you feel, but you can continue with IUI. After two to three IUI cycles, in vitro fertilisation (IVF) may be recommended; in this procedure, the egg is fertilised by sperm outside the body and then transferred to the uterus. After over 6 unsuccessful IUI cycles, additional IUI does not statistically increase the chance of pregnancy.

Does IUI pose any risks?

In addition to side effects, IUI also increases the risk of multiple pregnancies, especially in situations when follicle growth is not monitored by ultrasound and multiple eggs are released.



Managing stress

Talk to your partner

Infertility is a problem you face as a couple, not as individuals. Blaming yourself or your partner won't help the situation. On the contrary, by asking for support and relying on your partner, and by communicating openly with each other throughout the evaluation, diagnosis and treatment process, you may find that your relationship grows stronger. You will overcome this obstacle together, and your mutual support and understanding can strengthen your relationship further.

Support from family and friends

Speaking about fertility problems can be unpleasant, but expressing your feelings can help you release stress. It is important to lean on the support network of your family or friends, if you can.

Infertility is a sensitive topic, and many people may not know how to respond. Help your loved ones talk about your problems openly and avoid topics that could be hurtful or make you feel uncomfortable. Let your family and friends know how they can support you.

If you feel that you need more emotional support than your partner can provide and you also don't want to share everything with family or friends, you can speak to our counsellor.



You can find lots of information adapted to various stages in a couple's journey on our website www.europeivf.com/en.

Are you ready to take the first step?

If you are ready, book your first appointment at our clinic. Our coordinators can offer you in-person, phone or video appointments. We are available during normal business hours if you request, at a time that suits your preferences

Book a consultation with one of our leading fertility specialists



Europe IVF International s.r.o. www.europeivf.com/en info@europeivf.com +420 257 225 751

If you have any questions, ask us.



