

How IUI procedure works



What IUI does, and what it does not do

The basic idea behind the intrauterine insemination procedure is simple: instead of leaving sperm to travel through the vagina and cervix on its own, a clinician places a prepared sample directly into the uterus. This shortens the distance sperm must travel and helps more of them get close to the egg at the most fertile time in the cycle.

IUI is not the same as fertilization in a laboratory. The procedure does not combine sperm and egg outside the body, and it does not place an embryo into the uterus. Fertilization still has to happen naturally inside the reproductive tract, usually in the fallopian tube after ovulation. That is why timing is so important: the sperm need to be present when the egg is released.

Because IUI bypasses the cervix, it can be helpful when cervical mucus is not optimal, when donor sperm is being used, or when there is mild male factor infertility. The exact reason for using IUI varies, but the mechanics of the procedure are the same: prepare the sperm, place it in the uterus, and coordinate the timing with ovulation.

How the sperm sample is prepared

Before insemination, the sperm sample is usually processed in a laboratory. This preparation step is often called sperm washing. In practical terms, the lab separates the sperm from seminal fluid and other material, then concentrates the most motile sperm into a smaller volume. That makes the sample more suitable for placing into the uterus and reduces the amount of fluid introduced during the procedure.

This step matters because the uterus is a much more sensitive environment than the vagina. The goal is not simply to move sperm closer to the egg, but to do so in a way that is compatible with the uterus and focused on the sperm that are most likely to move well. When people hear the phrase washed and concentrated sperm, it refers to this laboratory preparation rather than to any change in the sperm's genetic material.

In some cases, the sperm comes from a partner; in others, donor sperm is used. The collection and laboratory handling process may differ, but the final aim is the same: to create a prepared sample that can be placed into the uterus during a tightly timed cycle.

Why timing around ovulation matters

IUI works best when it is scheduled near ovulation, because sperm and egg each have a limited window of viability. The clinician's job is to make sure the sperm are already in place, or arrive just before ovulation, so they can travel into the fallopian tube when the egg is released. If the timing is too early, sperm may not survive long enough. If it is too late, the egg may no longer be available.

Clinics may use several methods to estimate ovulation. Some people track their cycle with ovulation predictor kits that detect the luteinizing hormone surge. Others have ultrasound monitoring, blood testing, or medication-assisted timing. In a medicated cycle, a clinician may use medication to encourage ovulation or to better coordinate the insemination window. The exact approach depends on the treatment plan and the individual's medical situation.

Because timing is so central, the procedure often happens shortly before the expected release of the egg. This is why fertility teams spend so much effort

on monitoring. The sample itself is important, but the timing around ovulation often determines whether the sperm and egg ever meet.

What happens during the appointment

Most people are surprised by how quick the appointment is. The intrauterine insemination itself usually takes no more than 10 minutes, although the whole visit may take longer because of check-in, preparation, and a short observation period afterward.

You lie on an examination table in a position similar to a pelvic exam.

The clinician places a speculum to visualize the cervix.

A very thin, flexible catheter is passed gently through the cervix into the uterus.

The prepared sperm sample is slowly released through the catheter.

The catheter and speculum are removed, and the appointment is finished.

There is no surgery involved, and anesthesia is usually not needed. Many patients describe the sensation as mild pressure, brief cramping, or a feeling similar to a Pap test. Some notice little at all. Because the cervix is bypassed and the sample is placed directly into the uterus, the process is more targeted than intercourse, but it is still relatively low-tech compared with IVF.

After the sample is placed, the sperm still have to travel through the reproductive tract and into the fallopian tube. The clinician is not selecting the exact sperm that fertilizes the egg; the procedure simply improves the odds by giving the sperm a head start at the right time.

What to expect after IUI

After IUI, many people can return to normal daily activities right away. Some clinics ask patients to rest for a few minutes before leaving, but prolonged bed rest is usually not required. Mild cramping, light spotting, or a sense of pelvic fullness can happen, especially if the cervix was sensitive during the exam.

Emotions can be just as noticeable as physical sensations. The waiting period

after IUI can feel intense because there is no immediate way to know whether fertilization occurred. It is common to watch for symptoms and wonder whether every twinge means something. Unfortunately, early pregnancy symptoms and side effects from fertility medications can overlap, so they are not a reliable way to judge the result.

Clinics usually recommend waiting until the scheduled pregnancy test rather than testing too early at home. A test taken too soon can be misleading, especially if ovulation was medically timed or if medication was used in the cycle. If you experience heavy bleeding, fever, fainting, or severe one-sided pain, contact the clinic promptly because those symptoms deserve medical review.

Who may be offered IUI, and how clinicians think about fit

IUI is often discussed when a couple or individual wants a treatment that is less invasive than IVF but still offers more assistance than trying on its own. It may be considered for unexplained infertility, mild male factor infertility, cervical factors, or when donor sperm is needed. It can also be part of care for single parents by choice and some same-sex couples.

Before recommending a cycle, clinicians usually think about the reproductive anatomy, semen parameters, age, ovulation patterns, and whether the fallopian tubes are open. Those details help determine whether sperm placed in the uterus will actually have a path to the egg. If the tubes are blocked or sperm counts are very low, IUI may not be the right fit and a different treatment may be discussed.

This is also where people may hear about factors affecting IUI outcomes. That phrase includes things such as ovulation timing, egg quality, sperm quality, the underlying fertility diagnosis, and the number of treatment cycles attempted. Knowing those factors does not predict an individual result with certainty, but it helps patients and clinicians make realistic decisions about next steps.

For many people, the value of IUI is not just in its simplicity, but in how it fits into a stepwise fertility plan. It can be a reasonable early option when the goal is to improve the odds of conception without moving directly to more complex procedures.

