

Ovulation Induction/Intrauterine Insemination (IUI) vs. In Vitro Fertilization (IVF)

Ovulation Induction and Intrauterine Insemination (IUI)

Ovulation induction is the use of oral or injectable medications to stimulate egg production. It's a common component of IUI and other fertility treatments. Ovulation induction stimulates the growth of ovarian follicles (each containing one egg) and can be used with or without IUI, depending on diagnosis and treatment goals.

IUI is a non-surgical procedure that places sperm directly inside a woman's uterus to increase the number of sperm that reach the fallopian tubes and subsequently, increase the chance of fertilization. The procedure experience is similar to a Pap smear. IUI is not recommended for women with severely diseased fallopian tubes or who have a history of pelvic infections.

The most common reason to choose IUI is for a low sperm count or decreased sperm motility (movement). However, it can also be performed for unexplained infertility or in cases of cervical scar tissue (from past procedures) where tissue may be hindering sperm from entering the uterus.

In Vitro Fertilization (IVF)

In vitro fertilization (IVF) is an assisted reproductive technology (ART) fertilization process that manually combines an egg and sperm in a laboratory dish and then transfers resulting embryo(s) to the uterus for implantation.

IVF can be used to treat infertility in the following conditions:

- Blocked, damaged or missing fallopian tubes
- Male factor infertility, including decreased sperm count or sperm motility
- Women with endometriosis or ovulation disorders
- Individuals with a genetic disorder
- Unexplained infertility

The five basic steps of IVF:

- **Step 1.** Fertility medications are prescribed to stimulate egg production. Multiple eggs are desired since some eggs will not fertilize or develop.
- **Step 2.** Eggs are retrieved through a minor surgical procedure that uses ultrasound imaging to guide a hollow needle through the pelvic cavity to remove the eggs.
- **Step 3.** The male is asked to produce a sperm sample, which is prepared for combining with the eggs.
- **Step 4.** Sperm and eggs are mixed together and stored in a laboratory to encourage fertilization. A single sperm may be injected directly into an egg (intracytoplasmic sperm injection) to increase the chance of fertilization in cases where fertilization probability is lower. Eggs are monitored to confirm that fertilization and cell division are taking place. Once this occurs, the fertilized eggs are considered embryos.
- **Step 5.** Resulting embryos are transferred into the woman's uterus, using a small tube (catheter), typically up to six days following egg retrieval and fertilization. This non-surgical procedure is painless for most women, although some may experience mild cramping. If the procedure is successful, implantation (pregnancy) typically occurs around six to ten days following egg retrieval.



How successful is in vitro fertilization?

Success rates of IVF clinics depend on a number of factors, including reproductive history, maternal age, cause of infertility and lifestyle factors. Important to note: Pregnancy rates are not the same as live birth rates.