

## ALTERNATIVE OR COMPLEMENTARY THERAPIES

There is no scientific evidence that alternative therapies help couples to get pregnant or maintain pregnancy.

However, many patients report that they feel better when using one or more of these therapies alone or in addition to their medical treatments.

If alternative therapies help you feel healthier and more balanced, they generally can't hurt. When choosing an alternative therapy, remember:

- Consult your doctor and share all information on alternative therapies with your medical team.
- These therapies can be expensive, and may or may not be covered by private health insurance.
- You may want to ask around to find a practitioner who is knowledgeable about the issues involved in fertility.

Alternative/complementary therapies for infertility include:

- Acupuncture and Traditional Chinese Medicine (TCM)
- Mind/body techniques like relaxation and visualization
- Naturopathic medicine
- Yoga
- Hypnosis

# Fertility treatments

These first-line treatments for fertility are sometimes offered by gynecologists, as well as by fertility specialists.

## Ovulation induction

If your fertility exam has shown that you have problems with ovulation, there are medications that can temporarily enhance ovulation and increase a woman's chance for pregnancy. These medications include pills such as clomiphene citrate and letrozole, or injections. Ovulation induction treatment may be attempted up to 3-6 cycles. These medications range in cost per cycle from \$50 to \$1,000-2,000.

## Intra-uterine insemination

Intrauterine insemination (IUI) is an office procedure (done by a gynecologist or fertility specialist) in which sperm is prepared and placed directly into a woman's uterus to increase the chance of pregnancy. Usually IUI is combined with "superovulation" (see below). The IUI procedure must be carefully timed to ovulation. Ovulation may be detected by ultrasound or urine tests, or it may be triggered by an injection of hormones. On average, IUI costs \$300-400 in addition to the cost of medications. This treatment can be attempted up to 3-4 times.

## Superovulation

Gonadotropins are injectable medications taken daily to increase egg production by the ovaries. An IUI treatment cycle in which gonadotropins are used is also called "superovulation." Because each woman reacts differently to these medications, close monitoring is required during superovulation. This includes vaginal ultrasounds and blood tests every 1-2 days. The cost of superovulation ranges from \$1000-2000 for medications and \$300-400 for the IUI procedure.

## Donor insemination

Donor insemination (DI) is the process of placing frozen/thawed sperm from a donor into a woman's uterus at the time of ovulation. DI is an option for couples with male factor infertility, or for women who are single or in a same-sex relationship. Most donor sperm is supplied by sperm banks in Ontario. The cost of DI includes the cost to purchase sperm (~\$500-700/unit) and the cost of the sperm preparation for insemination (~\$300-400).

If first-line treatments were not successful or appropriate for you, you will need to see a fertility specialist. The next level of treatment available is usually in vitro fertilization.

## In vitro fertilization (IVF)

IVF treatment starts with injections of medications to stimulate ovulation in the female partner. The basic steps in an IVF treatment cycle are:

1. Egg collection: Eggs are taken directly from a woman's ovary.
2. Fertilization: A woman's eggs and a man's sperm are combined outside the body in a laboratory dish. If the egg fertilizes and begins cell division, the fertilized egg is called an embryo.
3. Embryo culture: The embryo (fertilized egg) is allowed to grow for a while in a culture dish. Initially the embryo consists of only one cell. Three days after being fertilized, most embryos have 6-8 cells.
4. Embryo transfer: The embryo is transferred directly to the woman's uterus. Hopefully it will implant and continue growing. Embryos can be transferred to the woman's uterus on day 3 or they may be cultured until day 5.

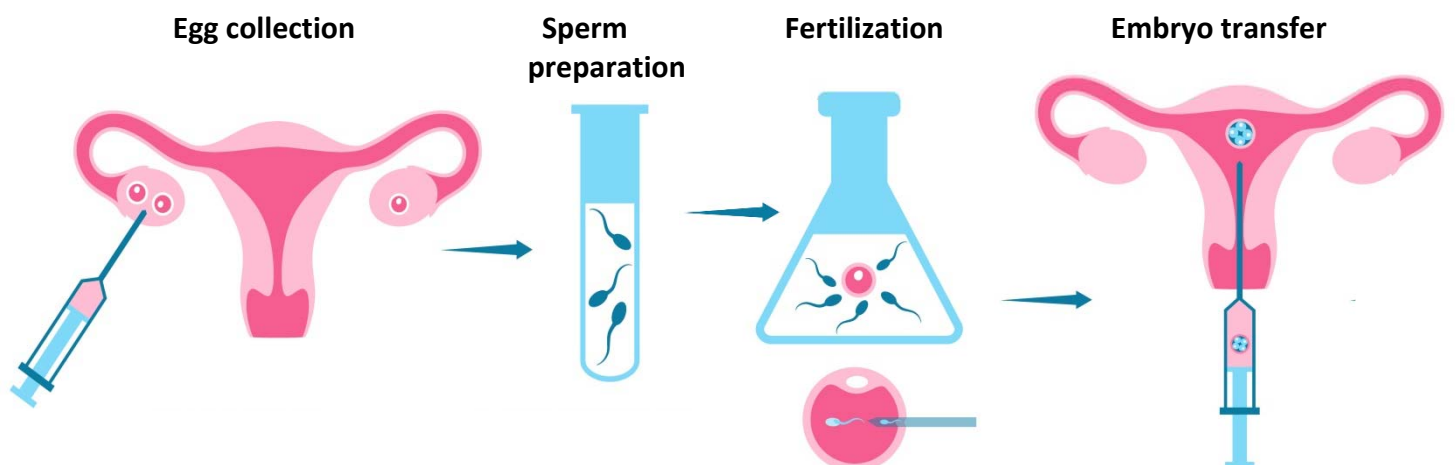
IVF is used to treat infertility caused by damaged or absent fallopian tubes, abnormal ovulation, unexplained infertility, inadequate sperm number or function, and age-related infertility.

Cost for IVF ranges from \$6000 per cycle, plus cost of medications and freezing of embryos if desired. IVF is offered at specialty clinics in several locations in Canada, including Saskatoon. Treatment involves multiple visits to the clinic, so travel should be factored in to costs.

## Single embryo transfer

When eggs and sperm are combined in a laboratory dish, more than one egg may be fertilized. Even if many embryos are available, couples are encouraged to have only one transferred at a time. The goal is to reduce the chance of a multiple pregnancy, which can be risky for both mother and babies. Embryos that are not used right away can be frozen for future attempts at pregnancy.

### Basic IVF Treatment Cycle:



If regular IVF is not successful or appropriate, other types of assisted reproduction can be considered.

## IVF with sperm injection

In this procedure a single sperm is injected directly into an egg to attempt fertilization. It is most commonly used with male factor infertility or when regular IVF has failed.

## IVF with egg donation

A woman can get pregnant with IVF using donated eggs to create an embryo, rather than her own eggs. In this option, the woman will give birth to a baby who is not biologically related to her. This is an option for women with ovarian failure, usually as a result of advanced maternal age (over 43 years). It is also an option when first line treatments or regular IVF has failed. The “ideal egg donor” is a woman under age 35 with proven fertility (she has had a pregnancy or child before).

## IVF with gestational carrier

A gestational carrier is a woman who agrees to be get pregnant (through IVF) and give birth to a baby on behalf of someone else. In this option, a couple can create an embryo through IVF using their own eggs and sperm, and then transfer the embryo to another woman. The embryo is biologically related to both of the intended parents, but not to the birth mother. This option is indicated for women without a functional uterus.

## IVF with Testicular Sperm Extraction (TESE)

*Or Percutaneous Epididymal Sperm Aspiration (PESA)*

When there is no sperm in a man’s semen, these procedures attempt to remove living sperm from other parts of the male reproductive tract. The sperm collected can only be used in conjunction with IVF, since it is not fully mature and able to fertilize an egg naturally. This is an option for men who have had a vasectomy, or who have other problems preventing sperm from reaching the semen.

## Reversing sterilization

For patients who have undergone voluntary sterilization (vasectomy or tubal ligation), it may be possible for surgeons to reverse the procedures. After the reversal, couples can try to get pregnant through intercourse. For this type of procedure fertility assessment is not required –a specialist should be consulted without delay.

**TUBAL REANASTAMOSIS:** the fallopian tubes are reconnected. The success of the reversal depends on the woman’s age, the type of tubal ligation performed, and whether or not there are other fertility issues present.

**VASECTOMY REVERSAL :** the vas deferens are reconnected. This surgery is less successful the longer it has been since the vasectomy was performed.

### Fertility law

In Canada, it is illegal to hire someone to be a gestational carrier or egg donor. However, it is legal if someone volunteers to play this role without any payment. It is common for both sides to get legal advice before entering this kind of agreement.