

**Egg Donor IVF (Donor)**

In vitro fertilization (IVF) using donor eggs is a process used to overcome infertility in women who are unable to conceive using their own eggs. Since the world’s first IVF baby, Louise Brown, was born in 1978, more than one million babies have been born as a result of IVF.

**What is IVF?**

Literally, IVF means “fertilization in glass”. An IVF treatment cycle has six different phases:

1. Pituitary Suppression Phase

In a natural menstrual cycle, hormones from the pituitary gland (LH & FSH) cause the growth of an egg within a fluid-filled space (follicle) in the ovary. Although several follicles start to grow each month, in a natural cycle only one will become mature enough to release its egg. Release of the egg (ovulation) is triggered by a sudden surge of the hormone LH at mid-cycle.

In contrast, during an IVF cycle it is desirable for several eggs to mature at once. To prevent a premature LH surge from triggering early release of these eggs, a **GnRH agonist** is used to temporarily turn off your own LH & FSH secretion. This medication is usually started around Day 22 of the menstrual cycle and continued through the stimulation phase. It is given daily by nasal spray or by injection.

2. Ovarian Stimulation Phase

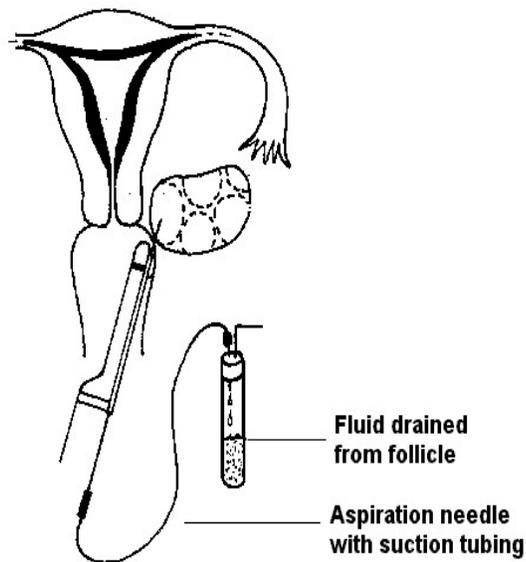
After about 2 weeks of pre-treatment with a GnRH agonist, we add daily injections of LH & FSH (known as Gonal F, Repronex, or Puregon). The injections continue for about 10-14 days and will stimulate the growth of several follicles. The response of the ovaries is monitored by blood tests and ultrasound, done at The Kelowna Regional Fertility between 8:30 and 9:30 am.

Although each woman and each cycle is different, this is an example of a treatment cycle schedule:

Treatment Day	1	2	3	4	5	6	7	8	9	10	11
Ultrasound						(✓)		✓		✓	✓
Blood Test				✓		✓		✓		✓	✓
Injection	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

### 3. Egg Retrieval Phase

Once blood tests and ultrasounds indicate a reasonable size and number of follicles, an injection of hCG is given, causing final maturation and loosening of the egg from the wall of the follicle. The egg retrieval occurs two mornings after this final injection (34-36 hours later) at Olive Fertility Centre.



The egg retrieval is performed by an **ultrasound guided needle puncture** through the top of the vagina. Local anesthetic (freezing) is placed in the top of the vagina. A short-acting intravenous medication is given for pain control. The fluid is drained from each follicle and examined under a microscope for the egg. Your recipient or your partner is welcome to be with you during this procedure.

You will stay at the clinic to recover for 1-2 hours after the egg retrieval. You must have another adult take you home, and you must not drive or return to work for the rest of the day. Depending on the circumstances, you may also wish to take the next day or two off work to rest. Your menstrual cycle will likely return one to two weeks after the egg retrieval. You may continue to feel bloating or exaggerated menstrual cycle symptoms during this time, and you may resume using medications that you might usually use for such symptoms (Tylenol, Advil, Midol, ibuprofen, etc).

## **POSSIBLE RISKS ASSOCIATED WITH IVF**

### *Drugs*

- Mild bruising and soreness at the injection site
- Allergic reaction, gastrointestinal distress, headache, or mood changes
- Ovarian Hyperstimulation Syndrome (OHSS). One percent of patients experience OHSS in which the ovaries produce many follicles and become larger than normal. Often OHSS is mild and improves without treatment. In some cases however, the symptoms can be more severe with OHSS resulting in very enlarged ovaries, dehydration, fatigue, and extra fluid accumulating in the abdomen and lungs. Very rarely (fewer than 1% of women undergoing egg retrieval through IVF), OHSS can lead to blood clots and kidney failure

### *Egg Retrieval*

- Mild to moderate discomfort (during or after the procedure)
- Injury to organs near the ovaries, such as the bladder, bowel, or blood vessels (1/1000)
- Bleeding from the ovary or pelvic vessels. Any bleeding is usually mild rarely requiring transfusion or surgery
- Pelvic infection is a very rare complication. However if they occur, they may be severe and typically are treated with intravenous antibiotics. It is typically treated with intravenous antibiotics. Rarely surgical intervention may be required.
- Ovarian cyst formation
- Ovarian torsion (twisting of the ovary requiring surgical intervention)

### *Multiple Pregnancies*

- Twins occur in 20 – 35% of pregnancies, while triplets occurs in 1 – 5%
- Premature labor with possible risks to the infant
- Premature delivery
- Maternal hemorrhage
- Cesarean delivery
- Pregnancy-induced high blood pressure
- Gestational diabetes
- The optimal number of embryos to be transferred is highly individual and often based on age. The goal is to transfer the minimum number of embryos necessary to provide a high likelihood of pregnancy with the lowest risk of multiple pregnancy

### *Birth Defects*

- The goal of IVF is to help you have a healthy baby. Overall, there does not seem to be an increased risk of birth defects in children conceived through IVF compared to those who conceive naturally

### *Ectopic Pregnancy*

- Ectopic pregnancy is a rare complication (1/100).

### *Cancer*

- Recent studies have failed to provide any convincing evidence that supports any association between fertility drugs and ovarian cancer

### **OPTIMIZING YOUR CHANCES OF BEING A SUCCESSFUL EGG DONOR**

- A healthy life style that includes exercise, a balanced diet and adequate sleep will help to optimize your chances of being a successful donor.
- Women who are underweight or markedly overweight may have difficulties during the treatment cycle. As medication doses and responses tend to be weight-related, overweight women may require much higher dosages of medication and may have difficulty absorbing it. If you are markedly underweight or overweight, we will calculate your body mass index (BMI) and may ask you to delay treatment until your weight is in a safer range.
- As a guide, while involved in the egg donor process, you should refrain from taking or doing anything that would not be considered safe in pregnancy.
- We do not accept egg donors who smoke as smoking has a deleterious effect on the number and quality of a woman's eggs.

### **CONTRACEPTION**

- You must discontinue all hormone-containing medications (such as birth control pills) prior to starting treatment. In order to prevent pregnancy, it is necessary to use either an IUD (not Mirena) or barrier contraception such as condoms and foam during the treatment cycle. If you are using a Mirena device, it must be removed before starting the donor egg cycle.