

**Ovulation Induction, Superovulation & Intrauterine Insemination**

**Ovulation Induction**

This treatment involves stimulating the ovaries with hormone therapy to induce ovulation in women who are not ovulating normally (typically women with irregular or infrequent menstruations). The goal of treatment is the release of one mature egg. The most frequently used medication is clomiphene citrate but if this medication proves to be ineffective injectable gonadotropins (FSH and LH) can be used to stimulate the ovary to promote egg development.

**Superovulation**

Superovulation is a form of ovulation induction involving stimulating the ovaries with injectable gonadotropins (FSH & LH). During superovulation therapy, the woman is treated with injectable medication that increase the number of eggs ovulated each month. At the appropriate time in the cycle, ovulation is triggered with another hormone called hCG. When taking such medications monitoring is required, including frequent blood tests and ultrasounds.

**Intrauterine Insemination (IUI)**

IUI utilizes a soft, plastic catheter to inject a sample of washed sperm directly into the uterine cavity (inside of the uterus). This process bypasses the cervix and brings the sperm closer to the fallopian tubes where fertilization occurs, increasing the chance of pregnancy. IUI is recommended for patients doing superovulation as it has been shown in research to significantly increase the pregnancy rate.

**What can I expect once I start superovulation?**

Superovulation begins on day 3 or 4 of your menstrual cycle and lasts for 8 – 12 days. You will be able to complete your injections at home. However, close monitoring of your ovarian response to stimulation by the gonadotropins will be required. This involves a series of appointments at The Kelowna Regional Fertility Centre for blood work and transvaginal ultrasounds. Here is an example of a typical treatment schedule:

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

### **What comes next once follicles are produced?**

A second medication called hCG is given. hCG will mimic the LH surge that occurs naturally in the body and is responsible for triggering ovulation (the release of an egg). Ovulation occurs approximately 24 – 36 hours after the HCG injection. The Kelowna Regional Fertility Centre will book your intrauterine insemination within this window of opportunity, to ensure the greatest likelihood of conception.

### **How successful is superovulation and intrauterine insemination?**

Couples with prolonged unexplained infertility typically have a 2–5% chance of successful conception. By utilizing superovulation and intrauterine insemination those rates increase to 15–20%.

### **What are the side effects and risks associated with superovulation?**

With superovulation your ovaries have been stimulated to produce more than one follicle this may cause exaggerated menstrual symptoms such as cramping, bloating, heaviness, fatigue and breast tenderness.

Typically superovulation results in the production of between 1–4 eggs. While this increases your chance of conception it also increases the possibility of a multiple pregnancy: 15–25% of pregnancies are twins,  $\leq 5\%$  are triplets.

Very rarely (<1% of cycles) a patient can develop ovarian hyperstimulation syndrome (OHSS) where the ovaries enlarge and fluid accumulates in the abdomen. This is a serious complication requiring bed rest and drainage of the excess fluids.

### **What services provided by The Kelowna Regional Fertility Centre are necessary for superovulation and intrauterine insemination?**

Following an initial consult with the physician, and if no further fertility investigations are required, these services will likely be required:

- One hour orientation with our nursing staff
- Purchase of gonadotropins
- Cycle monitoring (blood work and transvaginal ultrasounds)
- Possible intrauterine insemination preparation

Please request our latest price list for specific details.