



# FERTILITY FACT SHEET

San Ramon / Orinda / San Jose

## GONADOTROPIN INJECTIONS WITH IUI

Gonal-F<sup>®</sup>, Follistim<sup>®</sup>, Repronex<sup>®</sup> Bravelle<sup>®</sup> and Menopur<sup>®</sup> are a class of drugs known as Gonadotropins used to induce ovulation. These medications contain the hormone follicle stimulating hormone (FSH) and some also contain leutinizing hormone (LH). They are prescribed for women who don't ovulate on their own or for women who need multiple eggs for insemination or assisted reproductive technology (ART) cycles such as IVF. Often times these cycles are referred to as FSH/IUI cycles, Ovulation induction (OI) cycles, or Controlled ovarian hyperstimulation cycles (COH) combined with IUI.

Patients that have failed to conceive with Clomid (or who have a very limited fertility window) may consider moving onto an Injectable/IUI cycle where a greater number of eggs will be matured and the insemination will be timed with ovulation. Pregnancy rates from this type of treatment vary based on age, FSH level, and underlying cause for infertility. In general, women less than 40 years with a normal FSH level tend to have success rates from 12-17 percent per month. Tubal issues, severe male factor, and endometriosis tend to be associated with lower success in insemination cycles. For women that are > 40 years of age and/or have an elevated FSH will success rates between 6-10% per cycle. Miscarriage rates are relatively unchanged on a per embryo basis.

### **Description:**

Potential advantages of these medications include they are a purer form of FSH with a more predictable bioeffect, less contaminants than the older medications such as Metrodin, Pergonal, Humegon, or Fertinex, and may have less of a possibility of local reactions from the injection.

Gonal-F<sup>®</sup> and Follistim<sup>®</sup> (FSH) are obtained from recombinant technology, not from the urine of menopausal women. Repronex<sup>®</sup> Bravelle<sup>®</sup> and Menopur<sup>®</sup> are obtained from highly purified extracts of menopausal urine.

A significant plus for patients is that these newer medications can be given as a subcutaneous injection (using a smaller needle and can make it easier for the patient to give her own injections). Gonal-F<sup>®</sup> and Follistim<sup>®</sup> are both available as a pre-mixed solution administered using a Pen delivery system. Repronex<sup>®</sup> Bravelle<sup>®</sup> and Menopur<sup>®</sup> are available in 75 unit vials that need to be mixed before using.

### **Use:**

When given to pre-menopausal women, these medications stimulate the ovaries to form follicles that mature and produce eggs.

A typical regimen usually involves 7-12 days of injections during which the physician monitors progress of the patient's cycle with blood tests (indicating serum estradiol levels) and with vaginal sonograms (ultrasounds).

When the Estradiol levels and ultrasounds indicate that follicular development is appropriate, an injection of human chorionic gonadotropin (hCG or Ovidrel) is given. The injection of hCG is needed to provide the surge of luteinizing hormone (LH) activity needed to complete the maturation of the eggs and stimulates ovulation and release of the egg(s). Ovulation will occur approximately 36 hours after the injection of hCG. Insemination is timed appropriately.

Patients are usually placed on progesterone vaginal capsules starting the night after insemination and continued on this through the pregnancy test (and hopefully through the initial pregnancy ultrasounds.)

If a cycle is unsuccessful, many patients will take a month off from stimulation. If a patient wishes to go straight into another injectable/IUI cycle at the time of the negative pregnancy test, they will need a “baseline” sonogram to ensure that their ovaries have no leftover cysts from the previous cycle.

**Risks:**

Complications and side effects resulting from fertility drug use include ovarian hyperstimulation and multiple pregnancies (twins, triplets, etc.). Patient often experience local soreness, redness or bruising at the injection sites.

Hyperstimulation causes a temporary enlargement and swelling of the ovaries. Symptoms can include low abdominal pain, pressure, weight gain, and swelling, and usually begin 5-8 days after ovulation is induced. The symptoms usually disappear after menstruation if the patient avoids physical activities and sexual intercourse. Rarely, a patient may need to be hospitalized for observation and fluid hydration. Treatment consists of bed rest and pain medication. The risk of hyperstimulation is minimal when the patient is carefully monitored.

Most pregnancies are singletons (one child); however, about 30 percent of patients have multiple pregnancies. Most of these are twins, but triplets or higher multiples account for 5 percent of pregnancies associated with Gonadotropin use. Multiple pregnancies increase the risks of premature labor and premature delivery, pregnancy loss and complications to the mother.