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A Guide to Fertility Medications

What are fertility medications?

Fertility medications are drugs that will help the ovaries make follicle(s) or egg (s).

There are two main types of fertility medications, oral and injectable. **Clomiphene Citrate** (also known as **"Clomid"** or **"Serophene"**) is a pill that is taken orally for five days at the beginning of the menstrual cycle. Follicle stimulation Hormone (FSH) medications are injections that are taken for approximately 10 days during the first half of the menstrual cycle. FSH medications include **Gonal F, Puregon, Repronex** and **Bravelle**. In treatments with both types of medication, a pre-ovulation injection of a compound known as hCG is often used to stimulate the hormone changes (LH surge) that normally precede ovulation.

Why do we use fertility medications?

In people who have irregular cycles and do not ovulate on their own, fertility medications are used to help with ovulation and produce a follicle and egg regularly in order to achieve pregnancy. In those who have regular cycles but are having difficulty conceiving, fertility medications are used to try to increase the number of eggs produced each month in order to increase the chance of pregnancy.

How do fertility medications work?

Clomiphene citrate works on the hypothalamus of the brain to stimulate FSH or follicle stimulating hormone production from a gland called the pituitary that, in turn, stimulates the ovaries to produce follicles. Clomiphene citrate is usually taken Day 3–7 or Day 5-9 of the menstrual cycle.

FSH medications work directly on the ovaries to stimulate follicular development. FSH injections are started on Day 3 of a natural or induced menstrual bleed. The injections are continued until the follicles are mature (usually, within 9 -12 days).

While on fertility medications, your menstrual cycle will be monitored with periodic blood work and ultrasounds, or **'cycle monitoring'**. Together, this information is used to decide if the medications are working to stimulate your ovaries, and when your follicles are mature and ready for ovulation.

Fertility medications do not always work on the ovaries, and your cycle may be cancelled if your ovaries are not responding to the medications. In addition, we monitor the number of follicles you produce in case your ovaries over-respond to the medication. If you produce too many follicles, your cycle may also be cancelled to minimize the risk of a high order multiple pregnancy (triplets or greater).

What are the side effects with fertility medications?

Clomiphene citrate has been associated with hot flashes and abdominal bloating and mood changes. Rarely, clomiphene citrate can cause visual changes; in this situation clomiphene citrate should be stopped, and your doctor should be informed. FSH medications may also cause abdominal bloating and discomfort.

What are the risks with fertility medications?

The most important risk with fertility medications is multiple pregnancy (twins or triplets or rarely greater). The risk of twins with **clomiphene citrate is up to 10%, with triplets occurring very rarely. Multiple pregnancy rates with FSH medications can occur in up to 20% of cycles.**

Multiple pregnancies are high risk pregnancies that carry a higher risk of preterm delivery, low birth weight, cerebral palsy and neonatal death. Multiple pregnancies are also associated with increased risks to the person carrying the pregnancy such as preeclampsia, gestational diabetes and need for operative delivery. Because of the even higher risk associated with triplet pregnancies, multifetal reduction may be considered to reduce the risk of pregnancy and neonatal complications.

Fertility medications may cause **Ovarian Hyperstimulation Syndrome** or OHSS. OHSS is a potentially severe complication of ovarian super ovulation that can require intense monitoring or hospitalization. Patients with OHSS are at risk of dehydration and blood clots, and may develop fluid collections in their abdomen and chest that need to be drained. Risks of severe OHSS are 2 -3% with FSH medications and rare with clomid.

Fertility medications rarely cause the ovaries to become enlarged and at risk for twisting or torsion. These situations are emergencies and may require surgical management.

Are fertility medications associated with birth defects?

Although this area remains controversial, there is currently no strong evidence that fertility medications are associated with an increased number of birth defects. Some studies have suggested that some people who are infertile or require therapy to achieve a pregnancy may have a small increased risk of birth defects that may be unrelated to the use of fertility medications. It is important to realize that in spontaneously conceived pregnancies without fertility medications, the risk of birth defects is 3% among all children born. Furthermore, the risk of chromosome related abnormalities increases with age as well, in both naturally conceived and assisted conceptions.

Are fertility medications associated with ovarian cancer?

There is conflicting data regarding the association of fertility medications and ovarian cancer. Earlier studies initially showed an increased risk of ovarian cancer. However, the most recent data, compiling those earlier studies with newer data, suggest the risk of ovarian cancer in infertile patients is not increased. Infertility itself and lack of pregnancies may be associated with a higher risk of ovarian cancer.

Please speak to a nurse or physician at any time before or during your treatment cycle if you have any specific questions about your fertility treatment or fertility medications.