

A Guide to Fertility Medications

What are fertility medications?

Fertility medications are drugs that are used to help patients increase their chances of conceiving. Most of these medications work by helping the ovaries grow follicles that contain an egg inside.

What are some common indications for fertility medications?

Fertility medications have three main indications:

- 1. Ovulation Induction:** A treatment used for patients who do not ovulate regularly on their own. These patients will often present with infertility and irregular menstrual cycles. The main goal of this treatment is for patients to ovulate a single egg every month.
- 2. Controlled Ovarian Stimulation:** A treatment used to increase a patient's chances of conceiving every month. It works by increasing the number of eggs an individual ovulates during a single menstrual cycle (usually between 2-3 eggs). This treatment is commonly used in combination with insemination (IUI) cycles.
- 3. In-Vitro Fertilization (IVF):** In this setting, fertility medications are used to help the ovaries grow multiple follicles - as many as possible within a safe limit – during a single menstrual cycle. The eggs within each follicle are then retrieved from the ovaries and may be fertilized in the lab with sperm to create embryos.

What are some common fertility medications?

There are two main type of fertility medications: oral and injectable.

- 1. Oral medications:** These medications include Clomiphene or Letrozole and are often used for ovulation induction or controlled ovarian stimulation. They are usually taken for a period of 5 days at the beginning of the menstrual cycle (between Days 3 to 7). These medications work primarily by stimulating the production of FSH (follicle stimulating hormone) in the body which helps follicles to grow in the ovary.
- 2. Injectable medications:** These medications contain FSH, LH (luteinizing hormone) or a combination of both and include: Gonal F, Puregon, Repronex, Luveris and Menopur. These hormones are naturally produced by the body and normally regulate the menstrual cycle. These medications can be used for ovulation induction, controlled ovarian hyperstimulation and in-vitro fertilization(IVF).

Note: There are other types of injectable medications that are commonly used in fertility treatments and are not discussed in detail in this information sheet. These medications include **human chorionic gonadotropin (hCG)** (Pregnyl or Ovidrel) which helps trigger ovulation, and **gonadotropin-releasing hormone (GnRH) agonist/antagonist** (Suprefact, Orgalutran, or Cetrotide) which helps prevent ovulation during an IVF treatment cycle.

What are some common side effects with fertility medications?

Clomiphene has been associated with hot flashes, 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. Letrozole and injectable medications may cause mood changes, abdominal bloating and discomfort.

What are the risks with fertility medications?

Fertility medications may increase your risk of:

1. **Multiple pregnancies:** The risk of multiple pregnancies, such as twins or triplets, is predominantly associated with the use of fertility medications during controlled ovarian stimulation and IVF. The risk of twins is approximately 10% with oral medications and up to 20% with injectable medications. Triplets or higher-order multiples (e.g. quadruplets) are exceedingly rare (less than 1%).

Multiple pregnancies are **high risk pregnancies** that carry a higher risk of preterm delivery, low birth weight, cerebral palsy and neonatal death. They are also associated with increased risks to the person carrying the pregnancy such as preeclampsia, gestational diabetes and delivery via caesarian section.

2. **Ovarian Hyperstimulation Syndrome (OHSS):** A serious complication predominantly associated with IVF. OHSS is a self-limited disorder that is characterized by dehydration, accumulation of fluid in the abdomen and chest, and increased blood concentration that could lead to the formation of bloodclots. The risk of severe OHSS requiring hospitalization is approximately 0.1% to 2% in IVF cycles.
3. **Ovarian Torsion:** 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 selected people with infertility or those who 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.