



American Society for Reproductive Medicine

Formerly The American Fertility Society

PATIENT'S FACT SHEET: Side Effects of Gonadotropins

There are many types of gonadotropins used alone or in combination for ovulation induction. They include hMG (human menopausal gonadotropin, Pergonal®, or Humegon™), hFSH (human follicle stimulating hormone, Metrodin®), and hCG (human chorionic gonadotropin, Profasi®, APL®, or Pregnyl®). During the use of these drugs careful monitoring is required to minimize the risk of side effects, discussed below.

- 1) **Ovarian Hyperstimulation (OHSS).** Occurring in 1 to 5 percent of cycles, the chance of OHSS is increased in women with polycystic ovarian syndrome and in conception cycles. When severe, it can result in blood clots, kidney damage, ovarian twisting (torsion), and chest and abdominal fluid collections. In severe cases, hospitalization is required for monitoring but the condition is transient, lasting only a week or so. Occasionally, drawing fluid out of the chest or abdominal cavity helps. The best prevention is to not give hCG to induce ovulation at the end of an overly vigorous stimulation cycle.
- 2) **Multiple Gestation.** Up to 20 percent of pregnancies resulting from gonadotropins are multiple, in contrast to a rate of 1 to 2 percent in the general population. While most of these pregnancies are twins, a significant percentage are triplets or higher. High order multiple gestation pregnancy is associated with increased risk of pregnancy loss, premature delivery, infant abnormalities, handicap due to the consequences of very premature delivery, pregnancy induced hypertension, hemorrhage, and other significant maternal complications.
- 3) **Ectopic (Tubal) Pregnancies.** While ectopic pregnancies occur 1 to 2 percent of the time, in gonadotropin cycles the rate is slightly increased at 1 to 3 percent. These can be treated with medicine or surgery. Combined tubal and intrauterine pregnancies (heteroectopic pregnancies) occasionally occur with hMG and need to be treated with surgery.
- 4) **Birth Defects.** The rate of birth defects after gonadotropin cycles is no higher than in the general population, at 2 to 3 percent. Furthermore, these children are developmentally no different than their peers.
- 5) **Adnexal Torsion (Ovarian Twisting).** Less than 1 percent of the time, the stimulated ovary can twist on itself, cutting off its own blood supply. Surgery is required to untwist or even remove it.

ASRM Side Effects of Gonadotropins (*cont.*)

6) Gonadotropins and Ovarian Cancer. The risk of ovarian cancer seems in part related to the number of times a woman ovulates. Infertility increases this risk; birth control pill use decreases it. Controversial data exists that associate ovulation stimulation drugs like gonadotropins to the risk of future ovarian cancer. While research is underway to help clarify this issue, the careful use of gonadotropins is still reasonable, especially considering that pregnancy and breast-feeding reduce cancer risk.

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