

# Ovulation Induction with Gonadotropins

## Background:

Gonadotropins, also known as Follicle Stimulating Hormone (FSH) and Luteinizing Hormone (LH), are protein hormones produced by the pituitary gland by men and women. In the female, FSH promotes the maturation of ovarian follicles and the egg that they contain. The cells, which line each follicle, produce estradiol, which in turns promotes the growth of the uterine lining (endometrium) to create a favorable environment for embryo implantation. Estrogen also stimulates the cervical glands to produce clear mucus, through which sperm must pass, in transit to the egg in the distal end of the fallopian tube. LH is released in small pulses up until a large amount is released (LH surge) triggering ovulation in the ovary. Lower concentrations of LH help to promote and sustain the development of the early corpus luteum which is formed from the collapsed follicle following ovulation.

## Indications:

Prior to selecting the most appropriate regimen of gonadotropin therapy, the hormones FSH, LH and estradiol, as well as AMH, are measured on the 2nd to 4th day of a menstrual cycle. This enables the doctor to select the most ideal protocol likely to achieve optimal ovarian stimulation. These are injectable medications and the most appropriate regimen and dosage of gonadotropin therapy is approximately 8-12 days.

## What are the side effects?

According to the American Society for Reproductive Medicine, the main side effects are as follows:

**Common side effects:** Headaches, mood swings, and abdominal bloating.

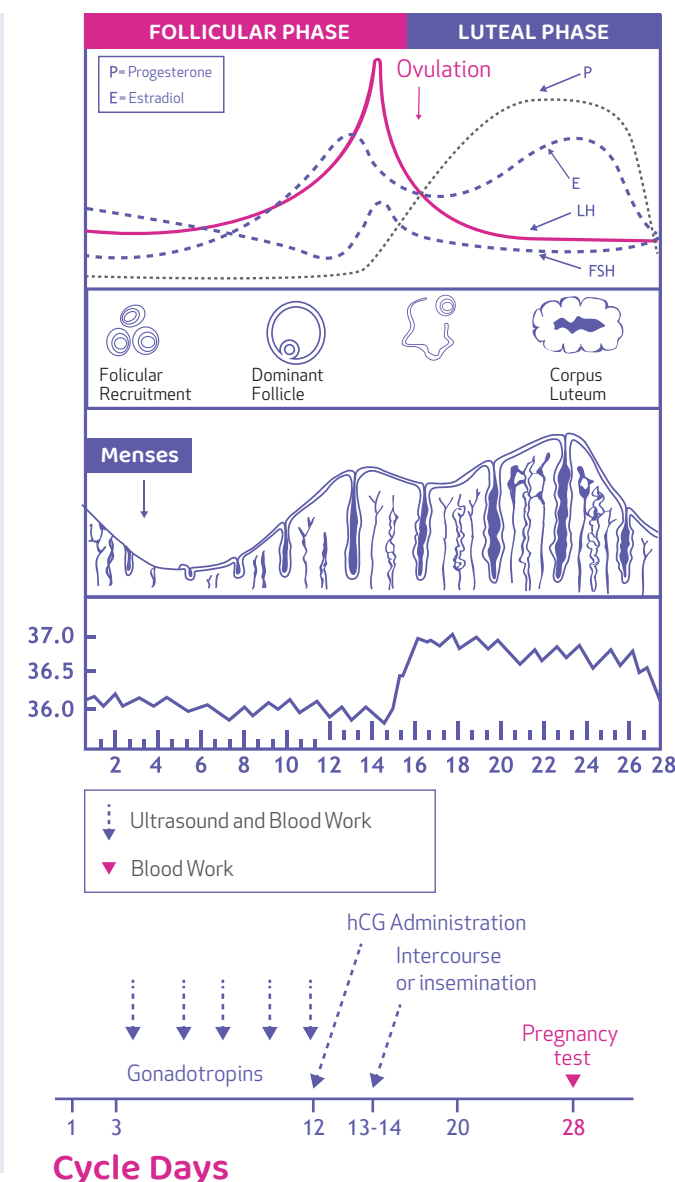
**Ovarian Hyperstimulation (OHSS):** Occurring in 1 to 5 percent of cycles, the chance of OHSS is increased in women with polycystic ovarian syndrome and in conception cycles. When severe (infrequently seen), it can result in clots in a blood vessel, kidney damage, ovarian twisting and chest and abdominal fluid collection. In severe cases, hospitalization is required for monitoring fluid intake and output and instituting appropriate treatment. While not totally preventable, careful monitoring of patients undergoing follicular stimulation should minimize this potentially serious complication. Those patients with grossly exaggerated responses may have their cycles cancelled prior to hCG administration or converted to an in vitro fertilization cycle.

**Multiple Gestation:** Up to 30% of pregnancies resulting from gonadotropins are multiple (twins or more), in contrast to a rate of 1% to 2% of the general population.

**Ectopic (Tubal) Pregnancy:** While ectopic pregnancies occur 1% to 2% of the time, in gonadotropin cycles the rate is slightly increased at 2% to 3%.

**Adnexal Torsion:** Less than 1% of the time, the stimulated and enlarged ovary can twist on itself, cutting off its own blood supply causing severe, acute abdominal pain.

**Long Term Risks:** According to the American Society for Reproductive Medicine, gonadotropins are not associated with an increased risk for birth defects. Although early studies suggested that the risk of ovarian or other cancers of the female genital tract might be increased when exposed to medications for ovulation induction, current studies have shown no increase in any cancers with the use of fertility medications. It is the Center's feeling that all fertility drugs need to be used prudently with suitable monitoring, for limited periods of time.



## Insurance questions

Our administration will be happy to assist you in determining your level of coverage for your prescribed treatment cycle. We strongly recommend that you contact your insurance company for clarification of benefits prior to initiating treatment.