# Patients Educational Series Clomiphene citrate



## Background:

Clomiphene citrate has been used for ovulation induction for many years. It acts by functioning as an anti-estrogen, blocking the normal feedback response between the ovary and the hypothalmic pituitary axis. By blocking the estrogen receptor, the pituitary gland perceives less estrogen being present and releases an increased amount of FSH to stimulate the ovary. This results in the recruitment and continued development of an oocyte and eventual ovulation.

The anti-estrogenic effect of Clomiphene can also affect the priming effect of estrogen on the endometrial lining as well as the production of cervical mucous. The ultimate effect on these target organs is usually a balance between the increased estrogen produced as a result of ovarian stimulation and the anti-estrogenic effect of the Clomiphene.



### Indications

Clomiphene Citrate is indicated for the treatment of ovarian dysfunction. This includes patients with anovulation, oligo-ovulation, luteal phase defect and those requiring timing of inseminations for the treatment of male factor or donor inseminations.

Clomiphene Citrate is usually started between the 2nd and 5th day of the menstrual cycle, counting the first day of full flow as day 1. The medication is usually taken in the evening, in tablet form, for 5 days. Most patients respond to 1, 2 or 3 tablets daily (50-150mgs). The response to Clomiphene therapy should be monitored to insure that an appropriate effect is being achieved. Normally it is our practice to start Clomiphene Citrate between cycle days 3-7 with the patient using an LH kit beginning cycle day 11-12.

An ultrasound, serum estradiol and serum progesterone are often obtained on cycle day 13-14. If a dominant follicle exists in the presence of an adequate estradiol level and a good biological effect on the endometrial lining, hCG is administered. The latter agent substitutes for the body's natural LH surge. Most commonly, ovulation will occur in 30-50 hours following this injection.



## What are the side effects?

The multiple birth rate with Clomiphene Citrate is estimated between 5 and 8%. The majority of these multiple gestations are twins. Other side effects such as moodiness, hot flashes, headaches, and blurred vision have been described.

# Does Clomiphine Citrate increase risks of birth defects?

According to the American Society for Reproductive Medicine (ASRM), doctors can advise patients that ovulation induction agents are not associated with an increased risk of birth defects.

### Long term risks:

Although there are no known long term risks associated with ovulation induction agents it is important that women considering the use of ovulation induction agents discuss the potential benefits and risks with the Doctor. It is the Center's feeling that all fertility drugs need to be used prudently with suitable monitoring for a limited period of time.

#### **Insurance Questions:**

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

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