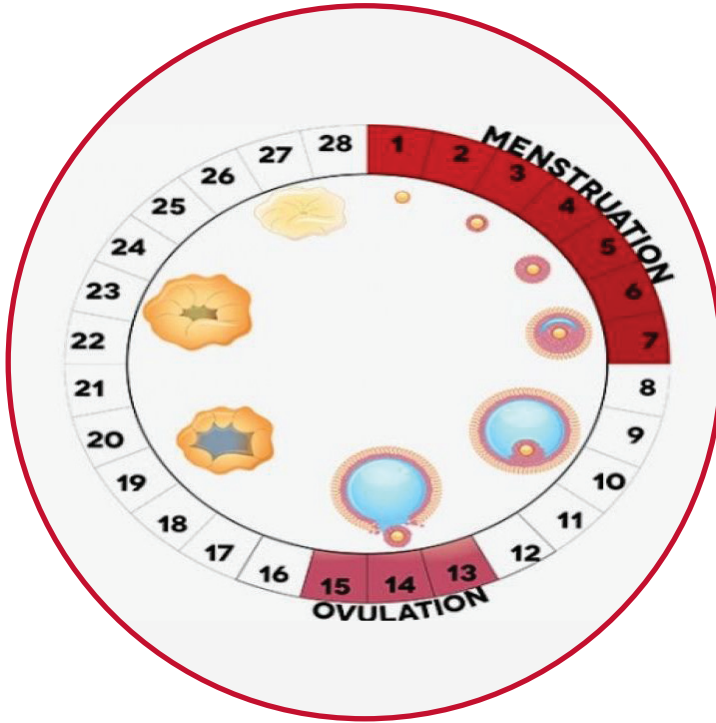


# OVULATION INDUCTION



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## What is Ovulation ?

Ovulation is the release of an egg from the ovary. This usually happens once every month in women in the reproductive age group, except during pregnancy. In some women this does not happen regularly. Disorders of ovulation account for subfertility in around 25% of couples. Anovulatory cycles most commonly occur in women with Polycystic Ovarian Syndrome. These women could benefit with ovulation inducing drugs.

## Preparing for ovulation induction

A woman and her partner should undergo an evaluation to determine the best course of treatment. This evaluation includes a complete history, physical examination, routine blood investigations, hormone assays, ultrasound of uterus and ovaries, tubal patency test and semen analysis.

Prior to initiating treatment, a visit should be scheduled to the Gynaecology Out Patient Department on day 2 or day 3 of the cycle (cycle day 1 is the first day of full menstrual flow). A baseline scan may be done for checking the number of follicles (antral follicle count) and to rule out ovarian cysts.

## Steps of ovulation induction

- 1. Ovulation inducing medication** – Drugs which stimulate ovaries to produce follicles containing eggs or oocytes are called ovulation inducing agents. The commonly used medications are Clomiphene Tamoxifen or Letrozole which are commenced within 5 days from the onset of menstruation. Sometimes, injections called Gonadotropins may be advised if there is inadequate response with oral medications.
- 2. Egg tracking** – Follicular study is an ultrasound evaluation of the ovarian follicles. The monitoring is usually commenced from day 9 of the menstrual cycle. The follicle number, size and rate of growth are studied by serial ultrasound examination. Depending upon the growth of the follicle, the type and dose of medications may be altered.
- 3. Development of follicles:** Our aim is to achieve development of one or two follicles of  $\geq 18$  mm in size, after which ovulation is facilitated by an injection called hCG.

Ovulation is expected to occur 24 to 36 hours after the injection and timed intercourse will be recommended.

### Testing for pregnancy

1. A urine test for pregnancy is advised 3 weeks after ovulation
2. Ultrasound: A scan is done if pregnancy test is positive

### Chance of pregnancy with ovulation induction

Pregnancy chances are 8-10% for each treatment cycle. The success rate depends on age, cause of infertility and response to treatment. With Clomiphene citrate, ovulation occurs in 70 to 80% of women. Half of them will have a successful conception within six months.

### Side effects of treatment

1. Oral agents are generally safe. They have a few side effects such as hot flushes, abdominal discomfort, nausea, breast tenderness, hair loss and sleeplessness which are not serious. If there are visual disturbances, treatment is stopped.
2. A multiple pregnancy occurs in 1 in 10 women when compared with a natural rate of 1 in 18 women. Most of these are twins; triplets are less common. Multiple pregnancies are more common with injectable hormone preparations, as hyperstimulation can occur with the production of more than 3 eggs.
3. Ovarian hyperstimulation (OHSS) is a condition in which the ovaries are swollen with multiple follicles (eggs) and fluid may leak into the abdomen and around the lungs or heart. It occurs in around 10% of treatment cycles but has serious effects in around 1 in 200 cycles. OHSS is more common with injectables.

### Symptoms

Symptoms of ovarian hyperstimulation are more likely to develop between 3 – 16 days after the hCG injection. The most common symptoms are abdominal discomfort, pain,

nausea, vomiting, abdominal distension, breathlessness and decreased urine output. If any of these symptoms occur, it is advisable to report to the hospital immediately.

### **Future course**

Usually 4 to 6 cycles of ovulation induction are prescribed. If pregnancy is not achieved by then, a review appointment is advised to discuss further treatment plan.