



GYNAECOLOGY AND FERTILITY CENTRE

INFORMATION SHEET

Ovulation induction

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Ovulation induction, anovulation and polycystic ovary syndrome (PCOS)

What is ovulation induction?

Ovulation induction is when medication is used to stimulate the ovaries to produce eggs. It is most commonly used to help women who have polycystic ovarian syndrome (PCOS), which causes anovulation.

What is anovulation?

Some women have irregular menstrual cycles and don't produce an egg each month. This is called 'anovulation'. An 'irregular cycle' is defined as one which varies by more than five days from one month to the next. PCOS is the commonest cause of anovulation. However, anovulation is also a cause of infertility in women without PCOS who are over or underweight or very stressed.

What is PCOS?

Polycystic ovaries contain many harmless cysts. They are found in around 20% of women. However, not all these women have anovulation and many are in fact fertile.

How is PCOS diagnosed?

Diagnosis is based on both pelvic ultrasound and a blood test for hormone levels. On the scan, the ovaries usually have the characteristic appearance shown below with many small follicles measuring two to nine millimetres in size, distributed around the edge of the ovary. The small follicles usually contain eggs but are inactive (dormant). Some women have less obvious ultrasound findings so we rely on the hormone profile findings and symptoms to make the diagnosis of PCOS.

Typical appearance of a polycystic ovary

How are anovulation and PCOS treated?

The initial treatment of choice for women with anovulation and PCOS is ovulation induction. This is dependent upon a normal semen analysis in the male partner and the fallopian tubes being open (patent) in the female.

- You will usually be prescribed a fertility drug called Clomifene (Clomid).
The tablets are taken for five days from day two to six of your cycle
- In your first cycle of treatment we will advise ultrasound scan follicle tracking (a series of vaginal ultrasound scans to check the development of the follicle) from day eight or nine of the cycle, to check that the ovaries are responding to the drug and there is a developing follicle
- The egg is usually released naturally once the follicle is more than 17mm in size and you will be advised to have intercourse at around this time
- Once we have confirmed that your ovaries respond to Clomid in a safe and predictable way (by producing one, or occasionally two follicles in each cycle) the drug can be taken safely for up to five more cycles without the need for further follicle tracking or medical review. We recommend the use of home ovulation detection kits in subsequent cycles to time ovulation more accurately
- About 70% of patients with anovulation respond to Clomid and conceive within six cycles of treatment
- When there is no response to Clomid or conception has not occurred after six cycles, we advise you to book a review consultation in clinic to discuss other options.

These are:

- **Clomid with Metformin:** Metformin is a drug taken in tablet form that lowers the insulin level. It works in anovulatory women with polycystic ovaries who have insulin resistance. It is particularly effective in women who have an increased body weight and is taken every day of the cycle. We advise follicle tracking during the first cycle of treatment with Clomid and Metformin to ensure the ovary is responding to the drug combination in a safe and predictable way
- **Ovarian diathermy:** this is a minor surgical procedure that involves having a laparoscopy under general anaesthetic. The surgeon identifies the ovaries and 'drills' five small holes in each. Within 24 hours of the operation the woman's hormone profile has reverted to a more 'normal' pattern and in 50% of cases spontaneous ovulation is restored. We monitor the response to diathermy by performing follicle tracking in the cycle immediately following the surgery
- **Injections of FSH +/- LH (gonadotrophins):** these are taken from day two or three of the cycle. These drugs are more potent than Clomid and require follicle tracking every cycle as the risk of more than one follicle developing and multiple pregnancies is higher than with Clomid. We prescribe a drug called Ovitrelle to help release the egg once the largest follicle has reached 17mm or greater. After ovulation, progesterone pessaries are prescribed and taken every night for 14 days. About 70% of women prescribed injections of fertility drugs for anovulation conceive within six cycles of starting treatment. At the Agora, the risk of multiple pregnancy on this treatment is extremely low as we step up the dose of the drug very slowly

Weight loss and exercise

Women who are over or under weight can reduce their chances of successful treatment with ovulation induction treatment.

Your consultant will check your height and weight ratio (body mass index) and may recommend delaying any form of treatment if your BMI is less than 19 kg/m² or greater than 30 kg/m². There is good evidence that regular exercise improves many of the metabolic changes and the tendency to gain weight associated with PCOS and we encourage our patients to exercise for around 40 minutes at least three to four times a week. If you are trying to conceive, your consultant will advise on which forms of exercise are safest.