



## Ovulation Induction using Clomiphene Citrate (Clomid™) Tablets

### Understanding ovulation

To understand how **Clomiphene Citrate** works it is helpful to have a basic understanding of ovulation. Normally a woman produces one egg every 24 – 35 days. Ovulation usually occurs midway through the menstrual cycle, approximately 12 – 14 days before the next menstrual period. A woman's best chance of becoming pregnant occurs around one to two days before or after the day of ovulation. The process of ovulation is controlled by the brain which releases hormones called follicle-stimulating hormone (FSH) and luteinizing hormone (LH).

### What can I do as the patient?

If you are overweight and your BMI is greater than 30, the initial treatment is to lose weight. In this hospital we are willing to use **Clomiphene Citrate** in women with a BMI between 30 – 35, but many units insist on a BMI less than 30 before treatment starts (see information on BMI and fertility).

- a. You can be referred to a Dietician if you choose to.
- b. Ideally you and your partner should refrain from smoking.
- c. You should be taking folic acid tablets.
- d. The alcohol intake should be limited to one to two units per week for you and three to four units per week for your partner.

### What is Clomiphene Citrate and how does it induce ovulation?

As part of your fertility treatment your doctor has recommended **Clomiphene Citrate** tablets which belong to a group of medicines called ovulation stimulants.

**Clomiphene Citrate** works by increasing your own hormone levels of FSH and LH. An increased level of FSH improves the chances of growing an ovarian follicle that can then trigger ovulation to produce one ripe egg ready for fertilisation.

### How do I take Clomiphene Citrate?

**Clomiphene Citrate** is a tablet taken orally (swallowed). You should start taking **Clomiphene Citrate** on day two of your menstrual cycle (day one of your cycle is the first day of your menstrual bleed). Your doctor will tell you what dose to take; commonly this is 50 mg (one tablet) once daily, at the same time of day, for five



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days. Sometimes the dose is increased if you are still not ovulating on your current dose.

## How many cycles of Clomiphene Citrate will I have?

Usually you will have up to six cycles. Under certain circumstances your doctor may prescribe a further three month course of treatment.

## What if I have irregular menstrual cycles?

If you have irregular or very infrequent periods, you may be given a tablet called Medroxyprogesterone Acetate (Provera™) to induce bleeding. You should then commence **Clomiphene Citrate** on the second day after your induced period has started.

## What should I do if I forget a dose?

Take the missed dose as soon as you remember it unless it is almost time for the next dose. Do not take a double dose to make up for a missed one.

## Success rates and the response to treatment?

Approximately 7 – 8 out of 10 women treated with **Clomiphene Citrate** will ovulate and 3 or 4 out of 10 women will conceive. Most women who ovulate will do so during the first three months of treatment. For further information please look at The National Institute of Clinical Excellence (NICE) website [www.nice.org.uk](http://www.nice.org.uk).

## What side effects can this medication cause?

Common side effects of **Clomiphene Citrate** include hot flushes, headaches, abdominal bloating and pain, nausea and vomiting, breast tenderness and menstrual irregularities with bleeding or spotting between cycles. In 1 – 2% of women visual symptoms can occur, including blurred or double vision and visual spots or flashes. If these occur, you must stop treatment and inform your doctor immediately or contact the Fertility helpline. These symptoms usually resolve when treatment stops. There is no increased risk of breast cancer or uterine cancer. There may be a slightly increased risk of ovarian cancer if more than 12 cycles of **Clomiphene Citrate** are used.

## What is the risk of ovarian hyperstimulation syndrome?

There is a small risk of ovarian hyperstimulation syndrome (OHSS) with **Clomiphene Citrate**. This is a rare but potentially serious complication where the ovaries are excessively enlarged. If you experience abdominal swelling, bloating or pain; nausea; vomiting; extreme thirst; passing concentrated small volumes of urine; weight gain; a red, hot, swollen and tender leg; or shortness of breath, you must contact a doctor or the fertility helpline immediately



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### Does Clomiphene Citrate treatment cause an increased risk to the pregnancy?

The incidence of twins is increased by 5 – 10%, but multiple births of more than twins are rare (less than 0.5%). The rate of miscarriage is not increased by the medication, nor is the incidence of birth defects.

### How do I know if the treatment is working?

A blood test form will be given to you when you start **Clomiphene Citrate**. The blood test should be done during your second cycle with **Clomiphene Citrate** seven days before you expect a period which is on day 21 if you have a 28-day cycle (either at your General Practitioner's surgery or the hospital). The treatment is working, and you are ovulating if the blood test shows your progesterone level to be more than 30. No further blood tests are needed for the rest of your treatment. You should contact the Fertility Helpline [01793 646071] two days after the blood test to obtain your result.

The dose of **Clomiphene Citrate** may need to be increased if your progesterone level is less than 30. Alternatively, your doctor may recommend that you change drugs and use a second line treatment (see below).

You will also have an ultrasound examination of your womb and ovaries during the first one to two months of treatment. This will be arranged in the Fertility Clinic. It will help the doctor to decide if you are responding to the **Clomiphene Citrate**, and check you are not developing cysts on your ovaries.

### Follow up arrangements

All patients started on treatment with **Clomiphene Citrate** will be followed up in the Fertility Clinic within the first three months to discuss your progress and review your medication, blood test result and ultrasound scan. You will also be followed up once your treatment with **Clomiphene Citrate** (or another drug) is complete.

### When is my best chance of becoming pregnant?

The most fertile time is the day of, and two days following, ovulation. This is usually day 14 of a 28-day menstrual cycle. However, sperm stays live in the female genital tract for up to 72 hours so regular sexual intercourse is most likely to result in a pregnancy.

### What alternatives are available?

Other drugs may be used as second line treatments if you do not ovulate on **Clomiphene Citrate**.

- a. Metformin – this drug was initially designed and approved for the management of type 2 diabetes. When used alone for four to six months,



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insulin sensitizing agents such as Metformin can restore regular ovulation and periods in some women with poly cystic ovarian syndrome (PCOS).

- b. Tamoxifen – this drug was initially designed and approved for the management of women with breast cancer. It can be used instead of **Clomiphene Citrate** in some women who experience severe side effects on **Clomiphene Citrate**.
- c. Letrozole – was initially designed and approved for the management of women with breast cancer. Increasingly this drug is being offered to patients where **Clomiphene Citrate** has not worked.

## What if I do not fall pregnant with Clomiphene Citrate?

You will see a doctor if Clomiphene Citrate has not worked. He or she will recommend other treatments, such as using different drugs, keyhole surgery or In vitro fertilisation (IVF).

From 1st January 2019 smoking will not be permitted on any NHS site in England. Smoking will not be permitted within any of our buildings or anywhere outside on our sites. Smoking facilities will not be provided. Please be considerate of others when vaping in hospital grounds.

**This information sheet is available to order in other languages and formats. If you would like a copy, please contact us on 01793 604031 or email [gwh.pals@nhs.net](mailto:gwh.pals@nhs.net)**

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