



**Department of Reproductive Medicine, Westmead Hospital**

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**Westmead Fertility Centre**

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# Ovulation Induction: Patient Information



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### Introduction

Ovulation is what happens when an egg is released from one of the ovaries. This usually happens once every month in women between the ages of approximately 13 and 50 years, except when she is pregnant or taking 'the pill'. In some women, this does not happen regularly. Some may ovulate once every 6 or 8 weeks; others once every few months and others once a year, or perhaps never unless they are given some treatment to stimulate the ovaries. It is also quite common for women who have regular periods to have one or two cycles a year in which they do not ovulate.

### Ovulation Induction

Treatment that may be used to stimulate the ovary when ovulation is not occurring regularly includes tablets or injections. The **tablets** are a drug called clomiphene citrate (brand names are **Clomid** or **Serophene**). These are taken once daily for 5 days, usually commencing on the second day of menstrual bleeding, and they stimulate the ovaries indirectly.

In some women, Metformin (brand names are Diabex, Diaformin, Glucophage, Glucomet, Glucohexal), may also be used to increase the chance that ovulation will occur. Metformin is a drug commonly used in the treatment of diabetes. It can also be used in cases of insulin resistance, which can occur in women with irregular cycles, and also when women have Polycystic Ovarian Syndrome (PCOS). Metformin may be used with clomiphene to increase the effect of the clomiphene. Both of these drugs may have side effects that your doctor will discuss with you.

The **injections** are of the hormones called gonadotrophins that stimulate the ovaries directly. There are two types of gonadotrophins – r-FSH (brand names **Gonal F** or **Puregon**) and r-HCG brand name Ovidrel. Either Gonal F or Puregon injections are given under the skin of the abdomen once a day, usually for 10 days or more to stimulate the ovaries into growing egg follicles.

The number of tablets of clomiphene citrate or ampoules of FSH given by injection, required to stimulate the growth of an ovarian follicle (a cyst containing an egg) varies widely between women.

Each treatment is individualised and in some cycles, progesterone or HCG may be given for a number of days after ovulation until the outcome of the cycle is known.

The injections can be given either at Westmead Fertility Centre, or by you or your partner, whichever you prefer and find convenient. You will need to come to the Fertility Centre a number of times during a cycle of treatment to have blood tests and ultrasound scans. The results of these are used to adjust the dose of tablets or injections and therefore reduce the risk of having a multiple pregnancy or of suffering the effects of excessive stimulation.

Ovidrel is used to trigger ovulation once the gonadotrophin injections have stimulated one or more eggs to become mature. Ovidrel is usually given only once in each monthly cycle by an injection under the skin of the abdomen.



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These treatments, both the tablets and in particular the injections, may cause many eggs to grow at the one time and therefore have a risk of causing **multiple pregnancy**. These treatments are also associated with a risk of causing other symptoms such as abdominal bloating and fluid retention as well as lower abdominal pain. These are all part of the **ovarian hyperstimulation syndrome**.

*Multiple pregnancy.* Although we strive to avoid this by careful cycle monitoring, the risk of multiple births (i.e. twins or greater) is still increased by this treatment.

*Ovarian hyperstimulation syndrome (OHSS).* This is a condition where many follicles grow on the ovaries causing them to become larger than normal and to secrete large amounts of fluid. This may cause severe abdominal swelling. Because low doses of drug are used in this treatment program, OHSS is an uncommon side-effect.

The number of tablets of clomiphene citrate or ampoules of FSH given by injection, required to stimulate the growth of an ovarian follicle (a cyst containing an egg) varies widely between women. Each treatment is individualised and in some cycles, progesterone or HCG may be given for a number of days after ovulation until the outcome of the cycle is known. The injections can be given either at Westmead Fertility Centre, or by you or your partner, whichever you prefer and find convenient. You will need to come to the Fertility Centre a number of times during a cycle of treatment to have blood tests and ultrasound scans. The results of these are used to adjust the dose of tablets or injections and therefore reduce the risk of having a multiple pregnancy or of suffering the effects of excessive stimulation.

### **WARNING**

The fertility drugs may cause too many eggs to grow to maturity thus creating the risk of a multiple pregnancy occurring. It is therefore our policy that if more than three mature follicles are seen on the ultrasound scan, the cycle will be cancelled and you will be strongly advised to use effective contraception for the remainder of the month. The medication dose will be reviewed before you start another cycle.

### **Instructions regarding gonadotrophin injection treatment:**

1. If you do not have regular "normal" periods, you may need to take Provera or Primolut N for 10 days to induce a period before you can start.
2. Call Westmead Fertility Centre (9845 7484) on day 1 of your cycle when you wish to commence treatment. You and your partner should have had a number of tests done prior to beginning this treatment and you will both have signed a consent form.
3. The injections commence between the 4<sup>th</sup> and 10<sup>th</sup> day after a period begins. You will be given an appointment to come to the Westmead Fertility Centre for a blood test, nurse interview and injection technique. You will be instructed when to return for your next blood test.



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4. You will also need to make your payment for the treatment cycle, and be oriented to the Fertility Centre at this visit.
5. From then whenever you have a blood test you will be contacted in the afternoon and informed when you need to return for further blood tests; or if you need to change your medication dose.
6. A vaginal ultrasound scan to measure the size and number of the developing follicles will be done when indicated by the blood test results. If too many follicles develop, treatment will be stopped and we will recommend you use some form of contraception (eg. condoms) to avoid the risk of multiple pregnancy.
7. When the ultrasound scan and the blood test results are satisfactory, an injection of HCG will be given to 'trigger' ovulation. Ovulation should occur within the next 36 hours and the best time for intercourse is within 24 hours of this injection.
8. A blood test to measure progesterone is required one week after the HCG injection to check if ovulation occurred and a blood test to confirm pregnancy is done 16 or more days after the HCG 'trigger' injection.

### What are my chances of pregnancy?

Following review of our statistics for ovulation induction treatment with injection over the past two years patients have a 29% chance of achieving a pregnancy for each cycle of treatment.

### Counselling

The nursing, scientific and medical staff are available to answer any questions and discuss any problems which may arise before, during and after treatment. A qualified counsellor is also available on request within the unit, from Tuesday to Thursday.

### Support group

We encourage you to join the Australian infertility support group "**ACCESS**". This gives you an opportunity to meet others with similar problems and to gain further knowledge about infertility treatments. The group produces a newsletter and holds meetings to discuss various infertility-related topics with guest speakers.

### **ACCESS**

Phone: 1800 888 896

Web address: [www.access.org.au](http://www.access.org.au)



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**Suggested reading**

If you feel you would like to read further, here is a short list of books we recommend. Some can be borrowed from the W.I.S.H. library, situated in our waiting room, others can be purchased from 'Health Link Westmead Hospital bookshop, or from any good bookshop.

**Getting pregnant A Compassionate Resource To Overcoming Infertility**

Robert Jansen  
Allen & Unwin St Leonards NSW 1997

**The Infertility Book: A Comprehensive Medical & Emotional Guide**

Carla Harkness  
Celestial Arts Publishing California 1992

**Why me: The Real-life Guide to Infertility**

Loraine Brown  
Simon & Schuster Roseville NSW 1998

**Battles with the BABY GODS INFERTILITY:**

Stories of Hope  
Amanda Hampson  
Doubleday Moorebank NSW 1997

**The Chance of a Lifetime: Infertility and IVF**

Dettman and Saunders  
Penguin Books 1987 ISBN 0-14-010069-5

**Infertility All your questions answered.**

Carl Wood and Gab Kovacs  
Hill of Content Publishing 1996

**When the Dream is Shattered**

Judith & Michael Murray  
Lutheran Publishing House 1988

**Infertility: A Guide for the Childless Couple**

Eck Manning B  
Prentice Hall 1977

**Healing the INFERTILE Family.**

Gay Becker  
Bantam 1990

**IVF: In Vitro Fertilisation**

Carl Wood & Robyn Riley  
Hill of Content 1992 ISBN 0-855-72-212-6

**The Time In Between: Motherhood Grief**

Jan Hill  
Umpire Times Press 1991

**Surviving Infertility: Compassionate Guide Through the Emotional Crisis of Infertility**

Linda Salzer

**Baby Making: The Technology and Ethics**

Susan Downie  
The Bodley Head ISBN 0-370-31136-1

**Loss of a Baby: Understanding Maternal Grief**

Margaret Nichol  
Bantam ISBN 0-947189-49-1

**Getting Pregnant: A Guide for the Infertile**

Derek Llewlyn-Jones  
Melbourne. Ashwood House Medical. 1990

**Endometriosis: An Enigma**

Lorraine Smith  
I and K Press Pty Ltd. 1989

**Coping With Grief**

Mal MsKissock and Dianne MsKissock  
Sydney. Australian Broadcasting Corp. 1995

**When your womb is empty**

Anita Henry-Peiris  
AJ Publications WA 1998

**The Infertility Handbook: A guide to making babies**

Jacqueline Tomlins  
Allen & Unwin St Leonards NSW 2003

**The Child Within: surviving the Shattered Dreams of Motherhood**

Linda Fisk  
Hill of Content Publishing 2001

**The Long-Awaited Stork: A Guide To Parenting After Infertility**

Ellen Sarasohn Glazer  
Jossey-Bass Inc San Francisco 1998

**Patient letters. Personal experiences of IVF**

IVF Friends Inc. 1995