

Clomiphene

(also known as Serophene or Clomid)

Clomiphene is a fertility medication used for the following purposes.

1. To induce ovulation in a woman who is not ovulating normally. There can be a variety of reasons why a woman may not ovulate. One of the most common of these is polycystic ovarian syndrome. (PCOS) More can be read about PCOS on our website. (www.Victoriafertility.com)
2. As a first-line fertility drug in women who may be ovulatory but are experiencing problems with fertility. The medication in this instance may be prescribed to try and coax the ovaries to release more than one egg and thereby enhance fertility. In this instance it is often given along with a treatment called intrauterine insemination.(IUI) Once again, more can be read about IUI on our website

How is this medication prescribed

Clomiphene comes in 50 mg tablets. The normal starting dose would be either 1 or 2 tablets (50 – 100 mg) taken every day for 5 days, starting on day 3 of the menstrual cycle. (day 1 is the first day of menstrual flow)

The response to clomiphene is very variable depending on a woman's age, weight and ovarian reserve. In some cases the response expected or hoped for may be less or more than actually occurs. For this reason it may be recommended that your ovaries are monitored by ultrasound to see exactly what response occurs. Although eggs are microscopic they grow in little capsules of fluid called follicles which are easily monitored by ultrasound

Side effects

Side effects are quite common and occur in at least 50% of patients who take clomiphene. Side effects include the following:

1. abdominal bloating
2. pelvic discomfort
3. nausea
4. fatigue
5. breast discomfort
6. moodiness and irritability
7. visual disturbances
8. depression
9. lightheadedness or dizziness
10. Hot flashes and night sweats
11. Hepatitis (extremely rare)

Risks

There is a very small risk of ovarian hyperstimulation syndrome.(OHSS - There is more information about this on website)

However this is very rare on clomiphene alone. In all my years practicing reproductive medicine I have never seen a patient develop OHSS on clomiphene alone

One of the most significant risks that every patient taking clomiphene should be aware of is of multiple pregnancy. There is further information about multiple pregnancy below.

Many patients who are prescribed Clomiphene at Victoria Fertility Center will have their ovaries monitored by ultrasound. You will therefore be informed of how many eggs will be releasing so will have a more definite idea of the risk of multiple pregnancy.

There has been a suggestion that the use various forms of fertility treatments including the use of clomiphene, may be associated with a slightly higher risk of autism spectrum disorders (ASD)

A large Danish study evaluated 600,000 children born between 1995 and 2003. Followup was for about 9 years. Approximately 0.61% children conceived naturally were diagnosed with autism and approximately 0.68% of children conceived through assisted reproductive technologies were diagnosed with autism. The authors concluded that ART was not associated with an increased risk of autism.

However a study presented in 2010 at the international meeting for autism research in Philadelphia found that autism seemed to be more common amongst children of women who were treated with clomiphene. Their research is also found that there seemed to be an increased risk with longer exposure to clomiphene.

It should be noted that the risks of autism are increased in women over the age of 35. The conclusions are that a causal relationship between clomiphene and autism has not been clearly established. However it is possible that there may be an increased risk but it is difficult to separate out the intertwined factors of maternal age, prematurity and low birthweight that are also associated with autism though come into play with fertility treatments.

If you have any further questions about this you should speak to Dr. Hudson or one of the health care professionals at Victoria Fertility Center

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The Risk of Multiple Pregnancies

The term “multiple pregnancy” refers to a pregnancy that includes more than 1 fetus (baby) Most multiple pregnancies are twins. However higher order multiple pregnancies such as triplets and quadruplets can also occur.

The incidence of naturally occurring twins in the general population is about 1 in 80. There does tend to be a familial risk – in that if you have a family history of twins, your risk may be higher. The risk of naturally occurring triplets is about $1/80$ squared = $1/6400$. The risk of naturally occurring quads is $1/80$ to the power of 3 = $1/512,000$.

However – the risk of multiple pregnancies is significantly increased with the use of fertility treatments. The risk with fertility drugs which induce ovulation (i.e. stimulate the ovaries to release more than 1 egg) of inducing a multiple pregnancy may be related to a number of factors. These include maternal age, the number of eggs being released (this is something that can be monitored by ultrasound), the quality of the sperm (i.e. the chances of sperm fertilizing the eggs) the length of fertility difficulties, etc.

Generally speaking there are 3 forms of fertility treatments which may put you at risk for a multiple pregnancy.

1. The use of fertility drugs (such as Clomiphene, Femara, and injectable drugs) to induce ovulation.
2. The use of fertility drugs to induce ovulation – combined with intra uterine insemination. (IUI)
3. In Vitro Fertilization. Here the risk is directly related to the number of embryos that are transferred in to the uterus.

There are many risks related to multiple pregnancies, and obviously the risks are increased with higher order multiple pregnancies e.g another more than twins.

These risks are divided in to 2 groups....

1. Risks to the mother. Any complication that can occur in pregnancy may do so more often when there is a multiple pregnancy. For example.....these include but are not limited to the following.....
 - a. Anemia
 - b. Miscarriage
 - c. Diabetes
 - d. Toxemia (high blood pressure)
 - e. Fatigue, nausea and vomiting
 - f. Excessive weight gain and fluid retention
 - g. Premature labour
 - h. Hospitalization
 - i. Need for time off work
 - j. Thyroid dysfunction
 - k. Blood clots – thrombo embolism
 - l. C section
 - m. Post partum bleeding (hemorrhage)
 - n. Post partum depression
 - o. Social stress – dealing with 2 babies

2. Risks to the babies. The main risk here is of premature delivery and low birth weight. Such risks include but are not limited to
 - a. Intra uterine growth restriction_(i.e. poor growth in utero)
 - b. Congenital abnormalities e.g. club foot, cleft palate etc. The overall risk to any fetus of having some form of abnormality is about 3 – 4 %, but this risk appears to be slightly higher with multiples.
 - c. Chromosome abnormalities. As women get older the risk of having a child with some form of Chromosome problem (such as Downs syndrome) is higher. The risk is slightly increased with twins, triplets etc.
 - d. Premature delivery and low birth weight.
 - e. Low birth weight can then be associated with learning difficulties, attention deficit disorder, poor growth after birth etc.
 - f. Cerebral palsy – the risk of a twin having CP is about 5 - 10 X that of a singleton baby. (On average the risk of cerebral palsy in singleton babies is about 1 – 2/1000, in twins is about 5 – 10/1000 and in triplets is about 30/1000.

Due to the quality of peri natal care today, the chances for babies surviving if they are born prematurely (after 25 weeks gestation) is high – but the risk of long term complications increases the earlier they are delivered and the lower the birth weights.

In our attempts to help couples to overcome infertility and get pregnant – with the use of fertility drugs, IUI and IVF – there will be an increased risk of multiple pregnancy. We at VFC do everything we can to maximize your chance of getting pregnant and reduce the chance of multiple pregnancy.

If a multiple pregnancy was to occur, and if there were more than twins, one option to improve the outcome for both mother and babies is a selective reduction. This is a procedure whereby one or more of the fetuses is “sacrificed”. It is like having a selective abortion so that the number of fetuses in utero is reduced. It is usually done at about 10 – 12 weeks gestation by a procedure similar to an amniocentesis. It is a difficult thing to go through – and apart from the emotional distress, can also cause a risk of miscarriage. i.e. the procedure itself may risk the entire pregnancy being miscarried.

Acknowledgement form: Risks of multiple pregnancy

I hereby acknowledge that I have read the information provided me about the risks of multiple pregnancy. I am aware that the medication prescribed and treatment advocated at the Victoria Fertility Center may increase the risk of my having a multiple pregnancy. I have had an opportunity to discuss these issues with the medical staff at the Victoria Fertility Center and feel well informed of my options

Date: _____

Name: _____

Signed: _____

Name of Partner (optional) _____

Signed: _____

Gestational carrier (If applicable)

Date: _____

Name: _____

Signed: _____

This form should be signed and either faxed to VFC at fax number 250 704 0034, or handed in to the front desk – before you start taking your medications