

Like most medical procedures and medications, fertility treatments and IVF do have some risks. While we have highly skilled staff and use leading, clinically-proven techniques, this fact sheet outlines the possible rare complications and will help you understand the risks.

THE FACTS ABOUT: Risks

Ovarian hyperstimulation syndrome (OHSS)

Ovarian hyperstimulation syndrome (OHSS) is a serious complication of IVF caused by excessive stimulation of the ovaries. It happens when too many egg-containing follicles are produced and causes rather sudden enlargement of the ovaries and fluid retention in the abdomen.

It is quite rare, but is a problem to some degree in 1 to 3 of every 100 treatment cycles. It is more frequently seen in women who have polycystic ovarian syndrome (PCOS).

The likelihood of being affected by this condition is decreased considerably by the use of an agonist nasal spray 'trigger' to ovulation instead of other methods, so depending on your circumstances, your specialist may suggest this approach for you.

If your ultrasound monitoring during the stimulation phase shows that you may be at risk of developing hyper-stimulation, we will tell you immediately and usually we decide to cancel the treatment cycle and stop hormone medications. Occasionally the doctor may recommend continuing to egg collection but to then freeze all embryos and delay embryo transfer for a month or two to avoid further aggravating the hyper-stimulation if you become pregnant.

In severe cases of OHSS, you may need hospitalisation for monitoring and medical treatment, including rehydration and clot prevention.

There are three levels of severity of OHSS:

MILD OHSS:

The symptoms include pelvic pain during the second fortnight of your cycle, which may make you feel like resting in bed for a day or two. You might also experience abdominal bloating, a feeling of fullness, weight gain and diarrhoea.

What to do?

- Call Life Fertility Clinic and speak with an IVF nurse coordinator.
- Weigh yourself daily and monitor changes.
- Refrain from intercourse until advised by the IVF nurse coordinator.
- Ensure you drink at least 2 litres of fluid daily (including 1-2 drinks such as Hydralyte).
- Remain as active as is comfortable but avoid strenuous activity.

MODERATE OHSS:

If the OHSS is moderate, you may need to have a hospital stay, mainly for observation and pain relief. Symptoms include sudden weight gain, tight clothing, vomiting, nausea and loose bowel motions.

What to do?

- Call Life Fertility Clinic and speak with an IVF nurse coordinator or your doctor.
- Your doctor may request daily blood tests and an ultrasound.
- Weigh yourself daily and monitor changes.
- Measure your waist daily at the level of the belly button and monitor changes.
- Keep a measure of your fluid input and monitor your urine output.
- Ensure you drink at least 2 litres of fluid daily and more if you can tolerate it. Drinks, such as Hydralyte, are good.
- Remain as active as is comfortable but avoid strenuous activity.

SEVERE OHSS:

In about 1 in 500 stimulations, there is enough fluid in either the abdomen or the chest to be of serious medical concern. For these women, the symptoms are so severe that hospitalisation is necessary.

With severe OHSS you are likely to experience a progression of symptoms including nausea, vomiting, marked abdominal pain, diarrhoea and dehydration. Fluid accumulates in the abdominal cavity and chest, causing abdominal swelling and shortness of breath. There is a reduction in the amount of urine you produce.

These symptoms will need to be constantly monitored in hospital by a doctor. Women diagnosed with severe OHSS may take up to 3-4 weeks to recover from their symptoms.

What to do?

Contact your IVF Doctor immediately or go to the nearest emergency department.

Adnexal torsion

Adnexal or ovarian torsion (ovarian twisting) is a condition where the stimulated ovary twists on itself cutting off its own blood supply. Ovarian torsion is a rare complication of IVF treatment. The overall risk is about 2 in 1000 IVF cycles. It is greater if there are already OHSS symptoms. Ovarian torsion may cause severe pain and tenderness in the lower abdomen.

If not treated early enough, the twisted ovary may die (gangrene). The treatment is surgery to untwist the ovary and to remove it if necessary.

Cycle cancellation

Less than 5% of cycles are cancelled before egg recovery but there are occasions when the doctor may recommend stopping treatment. They include when:

- Your ovaries are not responding to hormone treatment.
- Your ovaries are over-responding to the hormones, risking hyperstimulation (OHSS) (see above).
- Uterine abnormalities such as fibroids or polyps are unexpectedly detected on ultrasound.
- Your own personal reasons.

Multiple pregnancy risk

Although the prospect of twins or triplets may seem attractive to some couples, multiple pregnancies are associated with increased risks of maternal and foetal complications. Multiple pregnancies also put enormous strain on the parents and can cause financial difficulties, emotional distress and physical exhaustion.

In IVF the risk of multiple pregnancies is directly related to the number of embryos that are transferred into the uterus. At Life Fertility Clinic, we minimise the risk of multiple pregnancy by following the Reproductive Technology Accreditation Committee (RTAC) code of practice recommendations for embryo transfer number. This code of practice recommends that only one embryo is replaced in a patient's first treatment cycle (this is

a must for women under 35 years of age), and states that a maximum of two embryos should be transferred in any cycle for women under 40 years of age.

The key to preventing multiple pregnancies in TSI and IUI cycles is effective ultrasound monitoring. The doctor will review whether treatment can go ahead based on the number of follicles shown on the ultrasound scan.

Maternal risks associated with multiple pregnancy:

- Miscarriage
- Haemorrhage
- Pregnancy induced high blood pressure
- Diabetes
- Anaemia
- Polyhydramnios (excessive amounts of amniotic fluid surrounding the fetus)
- Caesarean section
- Prolonged hospitalisation resulting in a higher risk of clots and infection.

Foetal complications associated with multiple pregnancy:

- **Pre-term delivery** – The average length of a pregnancy is 39 weeks for a single pregnancy, 35 weeks for twins and 33 for triplets. Preterm delivery occurs in over 50% of twin pregnancies and in 90% of triplet pregnancies.

The proportion of twins and triplets delivering before 30 weeks pregnancy is around 7% and 15% respectively.

These babies are more likely to suffer serious, lifelong health problems, such as cerebral palsy and serious disability. **The risk per pregnancy of producing a child with cerebral palsy is 8 times greater in twin pregnancies and 47 times greater in triplet pregnancies than in singleton pregnancies.**

- **Low birth weight** – This is more frequent in multiple pregnancies. Over 25% for babies weighing less than 1 kilogram have lifelong complications of some sort.
- Increased stillbirth and neonatal death rates.

Risk of medications

Since ovarian stimulation medications were first used decades ago there has been concern that their use might increase the risk of cancer. Several large studies have now found that the rates of cancers among women who have used fertility medications are not significantly different from the rest of the population. There is no evidence to date that the medications used in assisted conception have a causal link to either breast or ovarian cancer.

Risks of egg collection

As with any surgical procedure, there are potential risks associated with egg collection. At Life Fertility Clinic, egg collection is performed by vaginal ultrasound.

The risks associated with this procedure include:

- Mild to moderate discomfort.
- Bleeding during or after egg collection from the ovary or from the top of the vagina. The bleeding is usually minimal, is very rarely a problem and the need for blood transfusion is very rare (about 1 in 500).
- Infection. This is also a rare complication (about 1 in 300) and can be treated with antibiotics
- Injuries to internal organs such as bowel, bladder or blood vessels during the procedure. This is an extremely rare complication (about 1 in 1000).

Failure of fertilisation, embryo growth or implantation

On rare occasions (less than 5 in 100 cycles) the eggs collected and inseminated in an IVF cycle unexpectedly fail to fertilise. Sometimes the sperm do not bind to the egg and initiate fertilisation or the sperm deteriorates too quickly for fertilisation to occur. Using ICSI on future cycles can overcome this.

Failure to fertilise can also occur (by IVF and ICSI) if the follicles that the eggs were extracted from had begun to fail prior to egg collection or if there are major sperm or egg defects.

On average 70% of eggs collected will fertilise and approximately 50% of these will form an embryo suitable for embryo transfer or freezing when cultured to the blastocyst stage. In about 15% of cycles there are no suitable embryos for transfer or freezing.

Even though embryos may appear normal, they can still fail to implant. There are many different reasons for this but it is believed that one common cause is that the embryo has an abnormal chromosome count.

Stresses associated with infertility

IVF treatment can be stressful and intrusive and take a toll on mental and physical health of both partners. Some of the challenges are:

- **Demands of stimulated treatment**

Daily injections, ultrasound appointments and phone calls can all be demanding.

- **Stress over the procedures**

Many aspects of fertility treatment involve invasive procedures which can be daunting, time consuming and cause discomfort. It can also be stressful for men to have to provide a semen sample on the day of a procedure.

- **Stresses caused by waiting periods**

Waiting for fertilisation results, embryo development updates, thaw outcomes and the long wait between transfer and pregnancy test can all be very stressful.

- **The possibility of treatment not being successful**

It is common for people to experience a range of emotions over unsuccessful treatments and losses. These include grief, stress, depression and anxiety.

So now you know the worst. Despite all the risks, downsides and potential disappointments along the way, our many happy parents say it was all worth it for them in the end so don't be discouraged.

In the meantime our friendly staff and counselling services will do their best to support you through any difficult times.

Contact Life Fertility Clinic

The friendly and professional team at Life Fertility Clinic are happy to answer any other questions you may have about the risks associated with treatment.