Ontario Network of Experts in Fertility
life through knowledge
McMaster University Department of Obstetrics and Gynecology
3210 Harvester Road,
Burlington, Ontario, L7N 3T1
P 1.877.663.0223 F 905.639.3810
www.onefertility.com

IVF Stimulation–Sample Schedule

** If you were ordered Estrace to prepare for IVF contact a nurse to get the medication and instructions.*

Please visit our website for injection teaching videos.

Day 1 of period - Call the clinic to book your IVF start visit for day 3 of your period. IVF fees are due on day 3. If you are on Estrace you might be asked to come to the clinic on a different day. In some cases your doctor may order that you start your IVF on a different day.

1st visit - Blood work and ultrasound (always in the morning between 7:00am and 10:00 am)

- You will start with 2-3 injections per day to stimulate your ovaries. You will get your IVF package which includes all of your instructions for the cycle.
- You will pick up all your medications as well as your supplies
- The nurse will ask you to pre-book your monitoring appointments
- The nurse will review your ultrasound and bloodwork results with the doctor on call
- The nurse will only call you that day if there is additional information that you need to know. If you are not called, proceed with the plan that was explained to you in the morning.

After 3-4 days of injections

- You will be advised to start a medication called Orgalutran or Cetrotide. This medication is ordered for you to prevent your body from releasing your eggs before the day of egg retrieval. Once you have started this medication, you will take it every day at the **SAME TIME EACH MORNING** until instructed to stop.

2nd visit (day 6 of injections) - Blood work and ultrasound

- During this visit we will assess how you are responding to the medication and we might adjust your dose.
- You will leave the clinic after your ultrasound. The nurse will call you after the results are back to tell you your report.

3rd visit (day 8 of injections) - Blood work and ultrasound

4th visit (day 10 of injections) - Blood work and ultrasound

- You may require additional cycle monitoring days, depending on your progress.
- The doctor will decide when you have had enough days of stimulation and when you are ready for your egg retrieval procedure. For most patients the retrieval is around cycle day 14, 15 or 16.
- Once a decision is made to book the retrieval, you will be given clear verbal and written instructions from the nurse, regarding how to prepare for your retrieval and instructed to take your trigger shots at a very specific time.
- Your egg retrieval will be 34 hrs after your trigger shots.

Ontario Network of Experts in Fertility
life through knowledge
McMaster University Department of Obstetrics and Gynecology
3210 Harvester Road,
Burlington, Ontario, L7N 3T1
P 1.877.663.0223 F 905.639.3810
www.onefertility.com

THINGS YOU SHOULD KNOW ABOUT IVF

In vitro fertilization (IVF) has captured the attention of the public since its groundbreaking introduction in 1978. To date there have been over 5 million births from IVF worldwide (*https://www.eshre.eu/Guidelines-and-Legal/ART-fact-sheet.aspx*). This exciting area of science evolves each day with new research and developments that are continually underway. Our goal is to educate you about IVF so that you are fully aware of what to expect from this treatment.

Your doctor has ordered IVF as part of your treatment plan. IVF stimulation involves administering hormonal injections (FSH/LH) just under the skin, in hopes of stimulating the ovaries to mature multiple eggs at one time. With ultrasound, we measure the follicles (ovarian cyst that should contain an egg). Based on the number of follicles, their sizes as well as your hormone levels captured through blood testing, we determine how you are responding and when we should have your egg retrieval.

Typical IVF Process:

1. Ovarian Stimulation
    a. In a natural menstrual cycle a person usually develops and release a single egg in a month. During IVF the ovaries are stimulated to develop multiple eggs in one cycle.
    b. During IVF, ovulation is suppressed until a person is ready for their egg retrieval
2. Egg retrieval (egg freezing when applicable) OR
3. Fertilization
4. Embryo development
5. Embryo freezing (when applicable)

How successful is IVF?

Success with IVF depends on many factors including, patient's age, health status and response to treatment. Each person's situation is unique. Success with IVF is more likely when the person having the egg retrieval is 35 years old or less and when the egg and sperm provider are healthy (healthy body mass index, no toxin exposure etc).

Reasons to Cancel a Cycle:

- Not enough follicles growing
- Hormonal levels not appropriate
- Ovulation despite the Orgalutran/Cetrotide medication
- Other

If your cycle needs to be cancelled we will explain to you in detail why it needs to be cancelled.

Ontario Network of Experts in Fertility
life through knowledge
McMaster University Department of Obstetrics and Gynecology
3210 Harvester Road,
Burlington, Ontario, L7N 3T1
P 1.877.663.0223 F 905.639.3810
www.onefertility.com

Risk of Ovarian Hyper Stimulation Syndrome (OHSS)

OHSS is a risk for those doing IVF. It is generally a risk for a person who are actively trying to get pregnant during their IVF treatment. When the treatment plan is to do IVF for Fertility Preservation purposes, the risk of getting OHSS is very low. The doctors will order a specific trigger shot as part of your treatment plan to decrease your risk of getting OHSS. Even though your risk of getting OHSS risk is very low you should know about this risk before undergoing IVF. When people develop OHSS, the hormones produced by the ovaries may cause fluid to collect in the abdomen and possibly around the lungs. This could then result in a risk of forming blood clots within their veins or compromising the function of their kidneys. For those who develop the syndrome the management might include careful monitoring through ultrasound and blood tests or the more severe cases might require hospital admission as well as fluid aspiration from the abdomen.

Retrieval Day

These procedures are done in the morning.

You will arrive at the clinic at a specified time having followed all of the instructions provided by the nurse the day that the procedure was booked. The procedure lasts on average 20-45 minutes. Expect to stay in the clinic about 2 hrs.

For making embryos we require a sperm sample the day of the retrieval. When applicable, partners produce the sample the morning of the procedure either in our facility or at home. If you are using a donor sperm sample, it has to be in our clinic before your stimulation starts. Anyone using donor sperm also requires counseling prior to signing the IVF consent. The clinic can help you arrange a counseling session.

You may have a support person of your choosing with you on the procedure day. Remember that you (or your support person) can't wear any scented products (ie no perfume, cologne or other scented products). You will need someone to drive you home that day.

You will meet a nurse and doctor before your procedure and the procedure will be explained to you.

The nurse will start your IV and check your baseline vital signs (Heart Rate, Blood Pressure, Oxygen level).

You will be provided instructions to follow after your retrieval, as well as instructions to follow if you experience a problem after the procedure. You will be provided with a phone number to call if you experience any problems when the clinic is closed. Through that phone number, you may reach the IVF doctor-on-call.

Sedation

The egg retrieval is generally done under conscious sedation. Your vital signs including Heart Rate, Blood Pressure and Oxygen levels will be continuously monitored during the procedure and a nurse will be by your side the entire time.

3210 Harvester Road,
Burlington, Ontario, L7N 3T1
P 1.877.663.0223 F 905.639.3810
www.onefertility.com

You will have an IV for administration of medications for sedation. The two drugs you will be given are called Fentanyl (a narcotic) and Midazolam (a sedative). You will be awake during the procedure but the drugs will take away most of the discomfort of the procedure.

If you are not comfortable enough during the procedure you can ask for more medication. We will give you more medication as long as it is safe/appropriate to do so. Keep in mind the more medication you have the more likely you are to suffer negative side effects of the medications, such as nausea and vomiting.

With these drugs there is a risk of over-sedation. If your vital signs become unstable during procedure, due to over sedation we have the reversal agents ready for administration to reverse the effects of the sedation drugs.

You have the right to refuse sedation for this procedure. This may be for medical reasons or if their body mass index is 40 or more.

The Procedure

Every day there is a doctor scheduled to perform procedures. Your procedure will be done by the doctor scheduled for procedures that day.

You will empty your bladder before the procedure and will be taken to our procedure room where you will be positioned on a bed with your legs in stirrups. The doctor will cover you with sterile towels.

The doctor will insert a speculum into the vagina and use a solution to clean the vagina.

The doctor will insert a vaginal ultrasound probe to locate your ovaries and find a correct way to access them. The ultrasound will provide visual guidance to the physician throughout the procedure.

Generally you will feel 2 needle pokes during the procedure and the doctor will warn you before the pokes.

During the procedure you will feel the pressure of the ultrasound probe and may experience some menstrual-like cramping.

The doctor will be collecting the fluid from your follicles into tubes which will then be passed through a small window to one of our embryologists who will analyze the fluid under the microscope to look for eggs. They will announce when they find an egg.

When the procedure is done you will know how many eggs were retrieved.

Under ultrasound guidance, the doctor will drain all follicles as longs as they are safely accessible. At times follicles or an entire ovary might be inaccessible. Keep in mind some follicles will be empty and some will contain an egg but it might not be in the right stage of development. The number of eggs retrieved is usually less than the number of follicles seen on ultrasound and not all eggs retrieved will be mature or satisfactory for use.

3210 Harvester Road,
Burlington, Ontario, L7N 3T1
P 1.877.663.0223 F 905.639.3810
www.onefertility.com

After the procedure you will be accompanied to the recovery room where you will stay until you are safe to leave. This generally requires an additional 30 min or more, after which you will be driven home by the person who accompanied you.

Procedure Risks

Risks of the retrieval procedure include infection, bleeding and injury to adjacent organs. In the rare occurrence that a major complication did arise from this procedure, the patient might require resuscitation, transportation to a nearby hospital, abdominal surgery, blood transfusion and hospital admission. Our staff is fully certified in Advanced Cardiac Life Support and our procedure room is stocked with an emergency management cart (a crash cart), oxygen tank and defibrillator all of which are checked regularly.

Biological Waste

After the procedure there will be extra biological material. You will indicate on your consent form if this biological waste can be used for research or if it should be discarded.

Freezing Eggs or Embryos

Eggs or embryos can be frozen indefinitely. Frozen eggs can be used in the future to create embryos and try for pregnancy.

Fertilization of Eggs

There are two ways to fertilize eggs in our lab:

1. Standard IVF involves putting sperm and egg together in a dish.
2. Intra-Cytoplasmic Sperm Injection ("ICSI") involves selecting a single sperm and injecting it directly into the center of an egg to try to improve fertilization

There is a risk **of failed fertilization (or no fertilization)** with both methods although this risk is slightly higher with the standard IVF method. Your doctor will develop a plan as to which method of attempting fertilization would benefit you.

There is a risk that eggs or embryos do not survive the thaw. There is a risk that the frozen eggs that survive the thaw do not fertilize or result in a viable embryo.

Embryo Development Updates

After your egg retrieval you will be called with updates from the lab.

There is a risk that embryos may arrest/stop developing or develop abnormally.

Our plan is to freeze the embryo(s) when they reach the blastocyst stage (day 5 or 6 post retrieval). Reaching the blastocyst stage is a necessary step before implantation. Embryos that can't achieve this stage

3210 Harvester Road,
Burlington, Ontario, L7N 3T1
P 1.877.663.0223 F 905.639.3810
www.onefertility.com

can't result in pregnancy. Sometimes patients who have 1 or 2 embryos want to freeze embryos when they are 3 days old, although they won't yet have reached the blastocyst stage.

Transferring a single blastocyst embryo (day 5 embryo) minimizes the risk of multiple pregnancy, which can result in pregnancy complications. There is still a very slight risk of identical twinning.

Embryos must reach the blastocyst stage of development in order to have potential for implantation.

Not all of your embryos are expected to survive to the blastocyst stage. We generally see a reduction in the number of embryos by about 50% between day 3 and blastocyst development so that usually half of the embryos have arrested by day 5.

You may have embryos that have not reached the blastocyst stage by day 5. These embryos will be cultured in the lab until day 6. All embryos that become blastocysts on day 6 will be frozen.

Some embryos can start to divide abnormally but can later become blastocyst embryos. We refer to these embryos as PNBs (polynucleated blastomeres). It is our practice to watch the development of these embryos to see if they become blastocysts. There are documented cases of these embryos resulting in healthy live births. If you have a blastocyst embryo(s) that resulted from a PNB embryo, your doctor will have a discussion with you and you will decide if you want to use the embryo(s). There is not enough research evidence available to know if PNB embryos have a higher risk of health problems in the new-born, but may have an increased risk of resulting in a miscarriage.

Risks of Adverse Outcome for the baby conceived with IVF

It is important to note that IVF pregnancies are at increased risk however those risks seem to be related to many other things associated with the patient population requiring IVF rather than the IVF process. It is not clear whether the IVF process itself increases these risks.

We are reassured that the great majority of babies conceived through IVF are healthy.

Long-term follow-up studies on children born following IVF are ongoing.

If you have any questions about the information in this document or require further explanation please ask our IVF coordinators at the consent signing visit or by calling the clinic.