



IVF 101: A Primer

The following information is intended to give you an overview of the IVF process at Wisconsin Fertility Institute.

Medications Involved with IVF:

Follistim/Gonal-F/Novarel/Menopur: These drugs are used to help grow eggs. They are actually the same hormones that your own body makes to grow eggs. Your own body will secrete a small amount of this hormone during your menstrual cycle, so that you grow one mature egg. You will take high doses of these hormones to grow extra eggs in a cycle. You usually will take these drugs for 9-14 days during your treatment. These drugs are injected just underneath the skin in your belly or your thigh.

Omnitrope: This drug is another shot taken just underneath the skin. It is used for women that may need a little extra help to improve quality of their eggs.

Ovidrel and Lupron: These shots, taken just underneath the skin, are used as trigger shots to prepare the eggs for retrieval. The timing of these particular shots is CRITICAL.

Ganirelix/Cetrotide: These drugs are also given as shots, just underneath your skin in your belly or thigh. It is usually taken in the morning, and is used to stop your eggs from ovulating too early.

Estradiol/Estrace: This drug is given by mouth and will begin once you start growing your lining for a frozen embryo transfer. You will continue it until week 11 gestation or until you have a negative pregnancy test.

Progesterone: This drug is after the lining check during your frozen embryo transfer. It helps keep the uterine lining thick and helps improve implantation of the embryo. You will continue it until week 11 gestation or until you have a negative pregnancy test.

Doxycycline: This is a drug taken by mouth that decreases infection rates. You will take it twice a day beginning the day of the retrieval.

Prednisone: This medicine has the potential to increase implantation rates by slightly suppressing the immune system. This is used during the frozen embryo transfer cycle.

Valium: This medicine is taken at the time of the embryo transfer to help relax the uterine muscle.

Timing of Medications in IVF Process:

On day 1 of your menstrual cycle, you will call the office to set up your baseline visit for day 2. If it is a weekend, call the office and have the doctor paged so we can get you set up for your cycle.

On day 2 of the cycle, you will come in for your baseline visit. At this visit, we will perform 1) a blood test to make sure your estrogen level is low and 2) an ultrasound exam of your uterus and ovaries to make sure there are no cysts and that all of the eggs are small.

If your estrogen level is low, your ovaries have no large eggs, and your uterus looks ready, you will be instructed, to start the first set of drugs to grow the eggs and perhaps some that will improve egg quality (Gonal-F, Follistim, Omnitrope).

Over the next 12-14 days, you will come in for ultrasound examinations and blood draws. You will be seen somewhere between 4 and 7 times during this 2 week period. We will adjust your dosing of drug to grow the eggs during this process.

About midway in the cycle, you will add the drug that will stop you from ovulating (Cetrotide, Ganirelix) and a drug to increase growth rate of the eggs (Novarel). Cetrotide or Ganirelix will be taken in the mornings, for 5-7 days total. Novarel will be taken in the evenings, either every day or every other day, depending upon your protocol.

When your eggs are mature, (at least two of them measure about 20 x 20 mm average size) you will be told to stop taking the previous drugs. That evening you will take your trigger injection(s): either Ovidrel or Lupron or a combination of both. The trigger will allow the eggs to mature even further.

You will be given a specific time to take this medication—the trigger injection(s) must be given within fifteen minutes of the time you are told to inject!

The next day is the day before your retrieval. It is a shot free day. **You may not have anything to eat or drink after midnight the day before the retrieval.**

The Retrieval (Day 0):

The retrieval is performed 36 hours after you have taken your trigger shot. You should not eat or drink anything after midnight the night before the retrieval. If you usually take medications in the morning, it is ok to do so with a tiny sip of water.

When you come to the clinic, we will place an intravenous tube into a vein in your arm. We will give you drugs for conscious sedation, you will be a little sleepy and won't feel any pain

If you are undergoing MicroIVF, then we will use a single intramuscular shot of drugs to make you a bit sleepy and use local shots at the vagina to keep you comfortable. We will not use IV sedation for you, unless you request it ahead of time.

During the retrieval, an ultrasound is placed into your vagina, and we aspirate or extract the eggs by passing a small needle across the vagina and inserting it into the ovary while we watch with the ultrasound. We will remove all of the eggs we find if you are undergoing standard IVF and remove up to four eggs if you are undergoing Micro IVF.

All eggs will be passed to the Laboratory Director who will look at each egg, and place each one in a Petri dish. A few hours later, the sperm is either placed with each egg in a Petri dish or a single sperm is injected into a single egg (via ICSI: Intracytoplasmic Sperm Injection).

Timing of Medication in the Frozen Embryo Transfer Cycle:

On day 1 of your menstrual cycle, you will call the office to set up your baseline visit for day 2. If it is a weekend, call the office and have the doctor paged so we can get you set up for your cycle.

On day 2 of the cycle, you will come in for your baseline visit. At this visit, we will perform 1) a blood test to make sure your estrogen level is low and 2) an ultrasound exam of your uterus and ovaries to make sure there are no cysts and that all of the eggs are small, and 3) do a mock embryo transfer to map the path through the cervix and an endometrial scratch to improve implantation rates.

If your estrogen level is low, your ovaries have no large eggs, and your uterus looks ready, you will begin Estrace pills orally, a total of 4 per day. Most women prefer to take 2 at breakfast and 2 at dinner. As early as day 11 of the drug, you can come for a lining check, and if the lining is 7 mm or greater and has a triple layer architecture, the progesterone is added. You will continue the Estrace until week 11 gestation.

Progesterone must be taken intramuscularly (big needle in the upper, outer quadrant of your bum). It is taken twice daily and will be taken until week 11 gestation. On the 4th or 6th day of Progesterone, the embryo(s) will be thawed and transferred. On this day you will need a full bladder, and will be given a valium which will relax the uterus for the rest of the day.

Both Prednisone and Doxycycline will be given for 5 days surrounding the transfer. These are taken orally.