



In Vitro Fertilization (IVF)

In vitro fertilization (IVF) is an advanced reproductive treatment which involves a series of steps and procedures to maximize a woman's chances of conceiving. These include: the administration of medications to stimulate the ovaries to produce multiple, mature eggs simultaneously, monitoring the growth of the ovarian follicles that contain the eggs with ultrasound exams and blood work, the retrieval of those eggs from the ovaries, the fertilization of the eggs with sperm, which occurs in the IVF laboratory and the transfer of embryos into the uterus to achieve a pregnancy.

Since IVF creates an environment which allows for interaction between many eggs and sperm simultaneously, multiple embryos are formed, of which the best can then be introduced directly into the uterus to optimize the chances of conceiving. For a woman to be able to conceive with IVF, she needs to respond to the fertility medication by forming multiple eggs that all reach maturity simultaneously. In addition, she should have a normal uterus with a thick uterine lining and no pathology (e.g., polyps, adhesions). Lastly, to fertilize the eggs, an adequate number of sperm are required. Under these optimal conditions, IVF yields the highest pregnancy rate out of all fertility treatments.

IVF is an appropriate choice for many patients. Women with blocked or damaged fallopian tubes, endometriosis, ovulation disorders, severe cervical or uterine factors, or diminishing ovarian function are among the more obvious candidates to conceive with IVF. In these conditions, the interaction between sperm and egg can be limited. When there is not enough sperm to achieve a pregnancy by intercourse or insemination because of a male factor, IVF can also help achieve a pregnancy by ensuring that the sperm and egg meet. When the number of sperm available is few, or fertilization is not clearly able to occur, the sperm can be directly inserted in the egg by a procedure called intracytoplasmic sperm injection (ICSI).

In many other less clear-cut cases, patients may choose to pursue IVF when their fertility evaluation fails to reveal any factors associated with infertility (unexplained infertility). It is also very common for couples who have not conceived with other fertility treatments to move on to IVF as their next step. Still other couples simply choose to proceed with IVF because it yields the highest pregnancy rates available, and it allows for the selection of the healthiest embryos for implantation, either by means of



microscopic examination, or through embryo biopsy, using pre-implantation genetic diagnosis (PGD).

Once you have decided to proceed with IVF, a series of steps ensue. First, an IVF class will teach you about the procedures involved in this treatment including the egg retrieval and embryo transfer. The class will also outline the laboratory techniques used including ICSI, assisted hatching, blastocyst culture, PGD and embryo cryopreservation. Then, an injection class will teach you about each of the medications that you will be taking during your IVF treatment and instruct you about the injection technique, dosage and timing.

There is also some additional testing necessary in preparation for IVF—a mock transfer and a sonohysterogram as well as infectious blood testing for both partners. You are also required to have a Pap smear within the past year and cervical cultures for gonorrhea and Chlamydia. Patients will also need to speak to the benefits specialist to find out if their insurance plan covers this treatment and what the cost is if it does not. IVF is a great option here at Women's Fertility Center, and our dedicated team is here to help you every step of the way!