

## RESOLVE: The National Infertility Association

### Ovulation Induction

Hormones are given to stimulate egg production, while preventing ovulation until the desired time. Doctors monitor estrogen levels over several days and by day five, vaginal ultrasound is used to monitor the growth, size and number of developing ovarian follicles.

### Egg Retrieval

Vaginal ultrasound guided aspiration is used to harvest the egg(s). Intravenous pain medication is used to make the woman comfortable during this relatively minor procedure. Timing is crucial. If the egg harvest is done too early, the eggs won't fertilize; if it is done too late the eggs may have been released spontaneously or may be too mature.

### Fertilization of the Eggs and Embryo Culture

Once the egg(s) have been harvested, anywhere from 50,000 to one million sperm are mixed with the eggs and allowed to incubate for 14-18 hours. The fertilized eggs (embryos) are then transferred to a new growth medium. The embryologist will look for embryos that have two pronuclei, indicating normal fertilization has occurred. Approximately 40 hours later, the embryos are examined and assessed to determine how they are developing. If the embryos are developing normally, the gestational carrier will visit the clinic to have the embryos transferred into her uterus.

### Preparation of the Endometrial

In order to time the embryo transfer properly, the gestational carrier must have the uterine cavity, called the endometrial, prepared to allow implantation. Several medications are administered to achieve this goal. Birth control pills are taken at the beginning of the menstrual cycle. Hormones are injected on a daily basis to stimulate the pituitary gland to regulate ovarian function. After 8-12 days, a menstrual period occurs.

While the genetic mother starts ovulation induction, the gestational carrier is started on estrogen to stimulate the growth of the lining of the endometrial. Estrogen is administered by intramuscular injection. To monitor the response to estrogen, a vaginal ultrasound is performed to measure the thickness of the uterine lining. The day before the genetic mother undergoes egg retrieval, the gestational carrier will stop the medication used to stimulate the pituitary gland, continue the estrogen and be started on progesterone to prepare the endometrial for implantation. Progesterone is administered by intramuscular injection.

### **Embryo Transfer**

Before transfer, embryos will usually be at the two to eight cell stage. Some clinics are now letting embryos grow for 5 days to the blastocyst stage.

The embryos and a small amount of the liquid medium in which they have been growing are drawn up into a soft rubber catheter, which is inserted into the vagina, through the cervix and into the uterus. The embryos are flushed gently out of the catheter. Ultrasound may be used to help the doctor place the embryos in the uterus. The woman may be instructed to stay in bed for several hours with her head lowered and feet raised. Discharge from the clinic occurs anywhere from 4-6 hours after embryo transfer. Progesterone will be given daily to maximize the chances of getting a good uterine lining for implantation to occur.

A blood test is performed two weeks after the embryo transfer to confirm a pregnancy. If pregnancy occurs, estrogen and progesterone medication is continued until approximately the third month of pregnancy. During the entire treatment cycle, the gestational carrier is monitored by a doctor to make sure medication levels and effects are appropriate.

*\*The information provided above is meant as a guideline for your reference only; your particular circumstances will determine what steps are required during the surrogacy process*