



# Handbook for Donor Egg Recipients

## INTRODUCTION

This guide provides a comprehensive overview of what to expect from your IVF cycle with donor eggs.

### *Getting in touch with us*

If you have general questions, please call our Donor Egg Coordinator, at 718-436-3747, or the IVF nurses at 718-331-3512. The Donor Egg Coordinator is available Monday through Friday. The IVF nurses can be reached directly between the hours of 8:00 a.m. and 3:00 p.m. Monday through Friday. For emergent matters after regular clinical hours and on weekends, please call 914-220-7664.

### *Getting in touch with you*

Medication instructions will be given to you by phone usually between 12:00 p.m. and 4:00 p.m. An answering machine or voicemail is necessary if you will be away from the phone at that time.

### *Cycle overview*

The IVF cycle is made up of several components: ovarian stimulation of the donor, egg retrieval from the donor, egg insemination, embryo culture, embryo transfer and, in some cases, embryo cryopreservation (freezing). Ovarian stimulation of the donor involves the administration of fertility medications to the donor in order to maximize the number of eggs retrieved. After the eggs are retrieved from the donor, they are fertilized in the laboratory. When the resulting embryos are ready for transfer into the recipient's uterus, the physician will discuss the recommended number of embryos to transfer. Success rates are greater when multiple embryos are transferred. Embryos of good quality that remain after transfer may then be cryopreserved, or frozen, for future transfer. Each stage of the IVF cycle is outlined in this guide.

## **PRIOR TO CYCLING**

### **1. Medical history, physical exam and uterine sounding**

A complete history and physical examination of the recipient is necessary prior to beginning treatment. Our program physician will perform the physical exam and uterine sounding. During the uterine sounding, the physician passes a slender tube (catheter) through the cervix and into the uterus to determine its depth and curvature. The procedure is usually no more uncomfortable than a pap smear. It facilitates the actual embryo transfer by creating a “roadmap” so that the transfer can proceed as smoothly as possible.

### **2. Semen analysis**

The recipient’s partner will have a semen analysis, which includes sperm preparation, or washing. An IVF semen panel is done which includes tests to measure normality of shape and predict sperm function.

### **3. Blood work**

Various blood tests, including HIV, syphilis and hepatitis screening, are drawn on both the recipient and her partner. In addition, the recipient will be tested for blood type and Rh, rubella, varicella, chlamydia, various hormone levels and a complete blood count. The recipient’s partner will be tested for specific genetic conditions that may be prevalent within his particular ethnic group (e.g. sickle cell anemia, Tay-Sachs disease, cystic fibrosis, etc.).

### **4. Other testing**

A pap smear within one year is recommended. Some patients may need to be referred for additional testing such as a mammogram (for women 40 or older) or hysterosalpingogram/ sonohysterogram, a study of the uterus and fallopian tubes. If this study suggests a problem within the uterus (such as polyps, fibroids or scar tissue), then your physician will perform hysteroscopy to further investigate and treat the problem. Hysteroscopy is a minor surgical procedure in which a thin telescope-like instrument is inserted through the cervix into the uterus. Women aged 45 or older may be referred for an electrocardiogram (EKG) and SMA18 blood test, as well as a consultation with a maternal-fetal medicine specialist.

### **5. Pre-op Visit**

During this appointment, one of the nurses will review in detail the IVF process as well as the different medications and how to administer them. She will review your specific medication protocol developed by your physician. Consent forms will be given to you and reviewed. In addition, a meeting with the finance office will be arranged, as financial clearance is necessary prior to cycling.

## **MATCHING**

Once you have submitted your recipient application, we will begin the process of matching you with an egg donor. We will match you based on the information supplied by both you and the donor. Although you will be able to see the information provided in the initial donor screening, the donor's identity will remain anonymous. No *information about you* will be shared with the donor, including the results of your pregnancy test.

*\* Important note: Before beginning your cycle, please discuss any potential conflicts (such as religious holidays, business trips or vacations) with us before you start medications so that we can avoid any disruption in your treatment.*

## **THE CYCLE**

### *Cycle cancellation*

It is important to recognize that, at times, a cycle needs to be canceled prior to egg retrieval because of a poor (or occasionally an over exuberant) response to medications in the donor. In other cases, eggs are retrieved but no embryos are available for transfer. These situations are uncommon in donor egg cycles because egg donors are healthy and have no history of fertility problems. If a cycle is canceled, your physician will discuss the situation with you and review your options for future cycles.

### *Medications*

#### **LUPRON**

Lupron may be prescribed for use during your preparation for the donor egg cycle. It will aid with the synchronization process between you and the donor, especially if you have regular menstrual cycles. Lupron temporarily and reversibly suppresses pituitary and ovarian hormone production. Lupron is given as a subcutaneous injection in the mornings. In the typical cycle, Lupron is started about one week after ovulation (one week preceding the next expected menstrual period.) You should notify the office when your period begins while taking Lupron (during business hours, please).

#### **ESTRACE**

While the donor is taking medications to stimulate the ovaries to produce multiple eggs, you (the recipient) will be taking Estrace to prepare your uterus to receive the fertilized eggs. This synchronization process is very important to the success of the donor egg/IVF cycle.

Estrace helps develop the lining of your uterus. Estrace consists of estradiol, a naturally occurring estrogen that is produced during the normal menstrual cycle. This natural form of estrogen is safe for use in pregnancy and must be continued during early pregnancy until the pregnancy produces enough estrogen to sustain itself. Breast tenderness, nausea and mood changes may occur with estrogen therapy.

The IVF nurses will give you detailed instructions on when to begin taking estrace. You will be scheduled to come in for an ultrasound one week after beginning estrace to measure the lining of the uterus. This measurement will help the physician determine if the medication is working appropriately.

A substitution with estrogen patches may be made during your cycle. The patches should be applied to the skin on the abdomen or buttocks. Some women may develop skin irritation with the patches.

### **ANTIBIOTICS (for the recipient's partner)**

The recipient's partner will take prophylactic antibiotics for ten days, beginning when the donor starts her stimulation. You will be notified by the office when your partner should begin taking the antibiotics.

### **PROGESTERONE**

Progesterone is essential for establishing and maintaining a pregnancy. You will begin taking progesterone supplementation on the evening of the donor's egg retrieval and will continue it through early pregnancy. The progesterone you are given is identical to natural progesterone and is not known to have any harmful effects on pregnancy, if taken as prescribed. Progesterone is given by intramuscular injection or vaginal suppository. It may delay the onset of your period and cause breast tenderness. **DO NOT REFRIGERATE PROGESTERONE IN OIL.**

## **INJECTION INSTRUCTIONS**

### **Lupron**

1. Place all necessary supplies (vial of Lupron, syringe with attached needle - either an insulin syringe or a 1 cc syringe with a short (less than ½ inch) needle), alcohol swabs) on a clean, dry flat surface. Always check the expiration date of medications.
2. Wash your hands.
3. Pull out the plunger to the marking of the amount of medication you will be taking.  
  
1mg = 20 units = .2cc  
.5mg = 10 units = .1cc  
.25mg = 5 units = .05cc
4. Clean the top of the medication vial with an alcohol swab.
5. Remove the needle cap and inject the needle into the vial of medication.

6. Without taking the needle out of the vial, turn the vial upside down and withdraw the prescribed amount of medication into the syringe by pulling back on the plunger. Make sure the needle is under the liquid level.
7. Once you have the proper amount of medication in the syringe with a minimum of air bubbles, remove the needle from the rubber stopper and prepare to inject the medication.
8. Hold the syringe in one hand being careful not to allow anything to touch the needle. With your free hand swab the selected injection site with an alcohol swab (the front mid portion of the thighs or the abdomen) and allow it to dry somewhat.
9. Pinch the injection site between your thumb and pointer finger with one hand holding the syringe in the other like a “dart”. Puncture the skin at a ninety-degree angle making sure the needle goes completely into the skin.
10. Depress the plunger at a moderate and continuous rate to inject all the medication.
11. Release the “pinched” skin and swiftly remove the needle from the skin.
12. Discard the syringe and needle in an appropriate “sharps” container.
14. Refrigerate the remaining Lupron.
15. Alternate injection sites daily.

### Progesterone in Oil

1. Place all necessary supplies (vial of Progesterone in oil, 3cc syringe with 1-1 ½ needle, alcohol swabs) on a clean, dry, flat surface. Always check the expiration date of medications.
2. Wash your hands.
3. Remove the cap of the bottle and clean the top of the vial with an alcohol swab.
4. Remove the needle cap and pull out the plunger to 1cc (unless instructed otherwise).
5. Inject the air into the vial of medication.
6. Without taking the needle out of the vial, turn the vial upside down and withdraw the prescribed amount of medication into the syringe by pulling back on the plunger. Make sure the needle is under the liquid level. Progesterone is difficult to withdraw, as it is an oily substance.

7. Once you have the proper amount of medication in the syringe with a minimum of air bubbles, remove the needle from the rubber stopper and prepare to inject the medication.
8. Hold the syringe in one hand being careful not to touch the needle. Swab the upper outer buttock area with alcohol. Allow it to dry somewhat. Stretch the injection site between your thumb and pointer finger with one hand and hold the syringe like a “dart” with the other. Puncture the skin at a ninety-degree angle making sure the needle goes completely into the skin.
9. Before injecting the medication, pull up a bit on the plunger to check for blood. If there is none, depress the plunger at a moderate and continuous rate to inject all the medication. If there is some blood when you pull back on the plunger, don’t worry. Simply pull the whole syringe out ¼” to clear the blood vessel, hold it there steadily and depress the plunger to inject all the medication.
10. Swiftly remove the needle from the skin.
11. Rub the site with a clean alcohol swab and gently apply pressure if bleeding is noted.
12. Discard the syringe and needle in an appropriate “sharps” container.
13. DO NOT REFRIGERATE PROGESTERONE IN OIL. Keep at room temperature.
14. Alternate injection site daily. If soreness occurs, use a warm compress and exercise the muscle to better absorb the Progesterone.

### **DISPOSAL OF SYRINGES**

After use, please place your syringes in the designated Sharps Container and cover it. At the end of your cycle, bring the container to our office. We will dispose of them in an appropriate manner.

### **MONITORING YOUR CYCLE**

#### *Office visits during your cycle*

Most cycles require some morning appointments for blood hormone tests and ultrasound monitoring of endometrial growth (development of uterine lining).

<u>Brooklyn</u> office:	6:45am – 8:15am Monday – Friday 7:00am – 8:00am Saturday – Sundays	
<u>Staten Island</u> office:	5:00am – 6:15am Monday – Friday	NO WEEKEND HOURS
<u>Hewlett</u> office:	7:30am – 8:30am Monday – Friday	NO WEEKEND HOURS
<u>Park Slope</u> office:	8:00am - 8:45am Monday – Friday	NO WEEKEND HOURS

## *Monitoring tests*

### ***Blood work***

- **Estradiol:** Measurement of estradiol is used in conjunction with the ultrasound to determine that the uterine lining is developing sufficiently.
- **Luteinizing Hormone:** The presence of luteinizing hormone or LH, a hormone that is secreted by the pituitary gland and causes ovulation, is also closely monitored throughout the cycle. LH levels are measured at the same time as the estradiol blood test. This does not require a separate blood drawing.
- **Progesterone:** the ovary makes this hormone just before and then after ovulation. Most patients undergo progesterone to confirm ovulation prior to starting Lupron a week before their period is due and then during the cycle to monitor for early ovulation.

### ***Ultrasound***

Ultrasound is particularly valuable in tracking endometrial growth and development caused by fertility medications. No preparation is needed before ultrasound, and the examination takes about 15 minutes to perform.

### ***Daily results and instructions***

The results of your morning ultrasounds and blood hormone levels are used by your doctor to determine if any modifications need to be made in your medication dosages and when your next visit is required. Each morning you will be asked to leave the phone number (or numbers) where you can be reached later that day. Every effort is made to contact every patient by 4:00 p.m. It is very important to have an answering machine at home. If you do not hear from us by 4:00 p.m., please call 914-220-7664.

## **ON THE DAY OF THE DONORS RETRIEVAL**

### ***ARRIVAL TIME***

When we call to inform you that the donor is ready to go to egg retrieval (no more than two days before the actual retrieval), we will give you an arrival time to come in and produce a sperm specimen. Please note that we schedule the donors retrieval time and all recipient sperm collection times very carefully to prevent everyone involved from being in the waiting rooms together. This means that your partner may need to wait upstairs while we discharge the donor from our recovery room. If, however, you are bringing the specimen from home, please notify the front desk so that we can make arrangements to get the sperm down to the lab.

## *SPERM SPECIMEN COLLECTION*

The recipient's partner will be asked to produce a semen specimen on the day of the donor's egg retrieval. There should be 2 to 5 days of abstinence prior to the retrieval. Semen samples may be produced in our private collection room. A fresh sample is best. If the partner will have difficulty producing a sample here, a semen sample can be produced at home as long as it can reach our laboratory within one hour of production. It must be kept at body temperature and not be exposed to heat or cold. Samples are generally obtained through masturbation. A special collection condom can be used to collect the sample if it is necessary to produce the sample through sexual intercourse. If the sample is produced outside our facility, please notify us in advance so we can discuss proper scheduling. Also, it is critical that you let us know prior to the start of the cycle if the male partner anticipates any problems producing a specimen, so that we can discuss special accommodations or contingencies.

Occasionally, a second semen sample will be requested if the first sample is not optimal. Therefore, **please do not leave our facility until you have been notified that the first sample is sufficient.**

If you plan to use *donor sperm*, please make sure that we are in possession of the frozen specimens prior to your starting medication.

*Please note the following:*

1. Use an approved sterile specimen container (available from our office.) If the specimen is produced through intercourse, use only a special "collection condom."
2. Do not use lubricants, as they are toxic to sperm.

## *FERTILIZATION*

Fertilization will take place in the laboratory on the day of the donor's egg retrieval. The day after retrieval, the eggs are studied for evidence of fertilization. To allow further cell division, eggs are cultured for approximately 48 hours before the resulting embryos are considered ready for transfer. The day after egg retrieval, a coordinator will call with preliminary fertilization results and a tentative date and time for embryo transfer. The embryos are assessed again just before transfer and, although rare, a transfer may be cancelled if no viable embryos exist.

## **EMBRYO TRANSFER**

Just prior to transfer, the physician will discuss the status of your embryos. You will find out how many embryos have formed, how many cells comprise each embryo and which embryos have been selected for transfer. Each embryo is also "graded." Embryos are assigned a grade according to specific criteria, including the degree of cellular fragmentation and the clarity or granularity of the

cells' contents. Embryo grade has been shown to correlate with both the likelihood of implantation (and pregnancy) and the ability of the embryos to survive freezing and thawing. However, there is *no* evidence for any increase in birth defects in babies born from pregnancies established with lower grade embryos.

The embryo transfer is performed either 3 or 5 days after the donor's egg retrieval by one of our physicians. You may eat and drink normally on the day of your transfer. The procedure is painless and requires no anesthesia, though you will be given a valium to take about a half hour before the procedure. For the transfer, you will be positioned on your back with your knees up. The physician gently places a speculum in the vagina as would be done for a pap smear. The cervix is cleansed with culture medium. Meanwhile, the embryologist carefully places the selected number of embryos into a special transfer catheter in a tiny volume of culture medium. The physician then passes the catheter through the cervix and into the uterine cavity where the embryos are gently expelled from the catheter. Frequently, an ultrasound is performed to visualize the catheter placement.

### **POST-TRANSFER INSTRUCTIONS**

Immediately following your transfer, you will rest comfortably on your back for approximately 20 minutes. **It is important that you maintain light activity the day of transfer.** You may return to normal activity the following day. You should avoid any exercise for one week. It is extremely important that you continue your estrogen and progesterone through the day of your scheduled pregnancy test and afterward if you are pregnant. If your period begins prior to your pregnancy test, notify the office during business hours but *do not stop the estrogen and progesterone or cancel the pregnancy test*, since bleeding may occasionally accompany early normal pregnancy. If you experience any severe pain, fever, heavy bleeding, nausea or vomiting, dizziness or fainting, difficulty breathing or sudden weight gain, you should notify the office *immediately*.

You should assume you might be pregnant up to the time of your pregnancy test and behave accordingly. Please refrain from using cigarettes, alcoholic beverages and recreational drugs. Notify your doctor before taking any over-the-counter or prescription drugs to make sure they are safe in pregnancy. *Do not take a home pregnancy test* prior to the date of your scheduled test because false results (either positive or negative) are possible.

## **FOLLOW-UP APPOINTMENTS**

You will be given two (2) appointments after your transfer:

1. Approximately 11 days after transfer to test for pregnancy
2. A few days after the pregnancy test to discuss the cycle with your physician.

The post-operative appointment is a critical part of the cycle as it gives the physician and couples an excellent opportunity to review the cycle and discuss possible recommendations for future cycles if necessary. Under special circumstances, this appointment may be done by telephone. Since the doctor does not have all the cycle information until the post-operative visit, we recommend saving your questions until then.

## **EMBRYO FREEZING**

Excess embryos of good quality can be frozen, or cryopreserved. Embryos can be stored for several years, thawed at a later date, and transferred into the uterus. Embryo freezing is especially useful if the current cycle is unsuccessful or if a future pregnancy is desired.

### *Thaw cycle*

Estrace and then progesterone are used to prepare the uterine lining. Frozen embryos are thawed and then transferred into the uterus. Approximately 15% of all embryos do not survive the freezing and thawing process. Those embryos that do survive the process will be returned to the uterus. Embryo freezing has proven to be a safe supplemental therapy, and no evidence of increased abnormal development has been found with embryos that survive the freezing and thawing process.

### *Embryo transfer*

The embryo transfer of thawed embryos is the same as that performed in a routine IVF cycle. Embryos are introduced using a plastic catheter that is inserted through the cervix into the uterus. The procedure takes about 10 minutes and no anesthesia is required.

### *Disposition of frozen embryos*

All couples are asked to carefully consider a variety of options for disposition of frozen embryos, select those best for them under a number of unforeseen circumstances and sign a consent form. The consent form must be signed before embryos are frozen. This gives Genesis specific instructions as to how to dispose of frozen embryos in the event of occurrences such as divorce or death of either spouse. Unless a couple clearly states their wishes regarding excess embryos, they will eventually be discarded. Couples who wish to change their decision at any time should do so by making the notarized request in writing to Genesis, only if both partners agree to the same change. Patients choosing to freeze embryos will incur a charge of \$1000, which includes our storage fee for six months from the date of retrieval. Afterwards the storage charge will be \$500 per year.

## SUCCESS RATES

Specific chances of success vary by patient depending upon age, indication for the procedure, number and quality of the eggs, sperm or embryos transferred, and many other factors. Therefore, a physician will discuss chances for success with each patient on an individual basis. As new information is gathered with each attempt, your chances of success can change.

## COMMONLY ASKED QUESTIONS

### 1. How do I start an IVF cycle?

After having been evaluated by a Genesis physician and been determined to be eligible as a donor egg recipient, there are several appointments to make to prepare for your cycle:

- a. Psychological consult to review certain aspects of the cycle, what to anticipate while cycling, and issues surrounding the use of a donor egg.
- b. Laboratory appointment for semen analysis, if required by your physician.
- c. IVF orientation with one of the Coordinators to review the details of the procedure and the medications involved.

### 2. What is the success rate with IVF?

Numerous factors influence success rates. These include age, indication for the procedure and sperm-related issues. The success rate may also be expressed as total pregnancy rate (which includes failed pregnancies) or delivery rate. Your physician will review the success rate and your specific expected pregnancy rate with donor egg.

### 3. Will my own doctor do the embryo transfer?

At Genesis each patient is assigned one particular physician. However, we have physician coverage systems in place. The doctors rotate their days in the operating room and on the weekends. Therefore, the doctor who performs your embryo transfer may not be your assigned physician. The physicians at Genesis are specially trained sub specialists in infertility and have extensive experience and expertise in IVF.

### 4. After the injection I noticed some blood on the skin or in the syringe. What do I do?

Don't worry. You probably hit a small blood vessel under the skin. Apply some pressure over the injection site and it will stop. There is no danger if some of the medicine went into the blood system.

### 5. If I stay in bed the day after my embryo transfer, will this increase my chances of success?

There is no evidence that prolonged bed rest after the first day will improve the chances of pregnancy. However, it is important to stay in bed the day of the transfer and minimize activity for

the next two days (until implantation has occurred).

6. Why do I need to take progesterone?

Progesterone is a natural hormone that is given intramuscularly or by vaginal suppository. It helps the lining of the uterus to be as receptive as possible for the embryo to implant. The package insert for the progesterone lists a number of possible side effects. Please note that the adverse effects listed apply to synthetic progesterone formulations and do not apply to the (natural) medication that you are taking. Also note that both vaginal suppositories and injections are equally effective.

7. When do I know if I'm pregnant? If I get a period, do I still need a test?

A blood pregnancy test ("HCG level") is done approximately 11 days after the embryo transfer. A home pregnancy test is not as accurate and could be misleading. In some circumstances, a period may result from bleeding at the site of implantation and can be confused with a normal period. Therefore, you should get a pregnancy test even if a period occurs.

8. What happens to the embryos in my uterus if I don't become pregnant?

The eggs and embryos are microscopic. If a pregnancy does not occur, they follow the same natural course that most often occurs in nature; the cells dissolve on their own.

9. Should my husband and I be taking vitamins?

A daily multivitamin containing folic acid 0.4 mg is recommended during your fertility treatment. Your partner may take a multivitamin. However, this will not affect sperm production for your cycle. Mature sperm are formed over 3 months prior to your cycle.

10. What if I am a Sabbath observer?

Please be sure you have informed us prior to starting your cycle. Callbacks on Friday afternoons will be made as early as possible. As embryo transfers can be done two or three days after retrieval, if day three is Saturday, the embryo transfer can be done on Friday.

*We wish you success in this endeavor. If you have any questions, please call our Egg Donor Coordinator at 718-436-3747 ext 6588.*