

### **THIRD PARTY PARENTING**

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Since the very first IVF procedure, the theoretical ability to perform egg donation or gestational surrogacy has existed. It took doctors and society a few years to realize this fact and get comfortable with the concept. Considering the wide variation in the legal status of egg donation and surrogacy throughout the world, it is also clear that not all societies have gotten comfortable with these procedures. In the U.S., especially in California, these procedures are helping many couples have children when they may not have been able to in the past. In addition, their high success rates demonstrate the true potential of assisted reproduction when all factors have been optimized.



This article will review the medical indications for both egg donation and surrogacy. We will briefly consider how egg donors and surrogate mothers are chosen and screened. Since the process for egg donation and gestational surrogacy are actually similar, we will discuss them together. Finally, a few thoughts about the legal and ethical aspects of third party parenting will be considered.

#### **Egg Donation**

The first egg donor cycles reported were actually donor embryo cycles, where frozen embryos from one couple were transferred to the uterus of another woman. These early reports proved that women could carry a pregnancy, even if they had no ovarian function. From these humble beginnings, there are now an estimated 2500 ovum donor cycles performed annually in the U.S. In 2003, Huntington Reproductive Center performed approximately 200 egg donor cycles. In the early years, each center devised rather casual arrangements to provide egg donors. With the increasing demand for donors, and increased public scrutiny, more formal procedures are used to find and screen donors.

#### **Indications for Egg Donation**

Women who benefit from egg donation can be divided into two groups: non-menstruating and menstruating females. Non-menstruating candidates are women with premature ovarian failure or physiologically menopausal women. The medical necessity and benefits of egg donation to these women is clear. Society is still struggling with the question with establishing an upper age limit for the latter group.

Menstruating women who may benefit from ovum donation include: 1) Women with waning ovarian function. These women may have high baseline FSH levels or respond

poorly to ovarian stimulation when they try IVF. 2) "Older" women. As women mature, a higher percentage of the eggs they ovulate contain abnormal chromosome numbers. Women over age 43 almost never conceive with their own eggs through IVF, and eventually need to consider egg donation. 3) Women with poor egg quality. Some women who experience multiple IVF failures may produce poor quality embryos, regardless of their age and FSH levels. These women often conceive with donor eggs. 4) Women who carry genetic or chromosomal abnormalities. Examples of these conditions are recessive traits like cystic fibrosis, dominant traits such as Huntington's Disease, and balanced translocations. In many cases women with these conditions can now use their own eggs with the help of pre-implantation genetic diagnosis (PGD). If, for any reason, PGD is unacceptable, egg donation becomes an option for some.

### **"I need an egg donor. Now What?"**

The recipient and egg donor both require screening. An often understated issue is the enormous psychological struggles and pain that a couple will endure as they grapple with the reality of abdicating the woman's genetic ties to their child. Most of these couples should have a session with a psychologist to discuss these issues. When these issues are resolved appropriately, couples can better focus on their primary objective, which is to start or enlarge their family. Both partners must undergo an infectious disease screen that includes, but is not limited to HIV, HTLV, hepatitis B and C, syphilis, gonorrhea, and Chlamydia. We are encouraging the male partner to undergo genetic screening for conditions that may be more common in his ethnic group. Examples include cystic fibrosis, Tay-Sachs disease and sickle cell disease. Uterine pathology, such as fibroids and polyps, should be ruled out through hysterosalpingogram, sonohysterogram, or hysteroscopy.

Finding a suitable donor may be difficult for many couples. Occasionally younger friends, sisters, or relatives may be interested in helping. Most couples do not have these people available and we work with agencies that recruit donors and provide legal contracts and short-term health insurance policies for the donors. Experienced agencies recruit donors from college campuses, professional or acting trade journals, etc. Most of these agencies maintain Internet sites that allow couples to view the donors in the privacy of their own homes. Couples focus on physical characteristics, IQ information, age, overall health history, and whether or not the woman has been a donor before. Some ethicists and physicians have criticized the agency system for commercializing the process. While agencies provide a useful service, they have also created egg donor "fee inflation."

As agencies compete for the same pool of potential donors, they begin raising the donor fees to attract women to their agency. This plays right into the hands of the critics. Currently, donors are receiving an average of \$5,000 per cycle. This fee was supposed to compensate them for time, effort, and discomfort. As the fees go higher, they clearly go beyond this goal. The news media has reported stories on some women receiving as much as \$50,000 because they claim supermodel/genius status. At Huntington Reproductive Center, we strongly discourage such practices and encourage our patients to seek appropriately compensated donors, rather than be held hostage to these situations. A brilliant, gorgeous, athletic woman does not necessarily produce similar children!

Once a donor is selected, she will undergo a medical evaluation. She and her partner are screened for infectious diseases, like the recipients. She also takes a drug screen. A thorough genetic/family history is taken to look for any possible genetic traits that the donor may not be aware of. Obviously, this feature requires the donor to understand her family history and be honest about it.

## **Results**

In general, results with egg donation in appropriately selected couples are excellent. When discussing results, it is important to distinguish pregnancy rates per egg retrieval and per embryo transfer. Most donors produce 10 or more eggs. Our results show that success rates do not improve greatly by transferring more than 2 embryos to the recipient's uterus, in most cases. Thus, most donor cycles produce several extra embryos for freezing. At HRC, our success rates with fresh donor egg cycles average around 50% per embryo transfer. Our results with frozen embryos are not much lower, so the added success rate of the fresh plus frozen transfers exceeds 75%. This cumulative success rate is the same as the pregnancy rate per egg retrieval procedure.

When a couple fails to achieve a pregnancy with egg donation, the situation can be quite overwhelming due to the high expectation of success and the substantial drain on financial resources. Our group is always cognizant of these realities and every attempt is made to work with couples in the event of failure to help them continue in the donor program, unless it appears that the failures are due to an underlying medical problem in the recipient, which obviously needs to be addressed and resolved.

## **Surrogacy**

In general, surrogacy has not gained widespread acceptance in most of the world. Almost all European countries, Japan, and Australia forbid the practice. Some of these countries allow "altruistic" surrogacy if no financial compensation is involved. "Traditional surrogacy" refers to artificial insemination of a surrogate mother with the semen of the intended father. In contrast, gestational surrogacy involves the production of embryos through IVF, using the eggs and sperm of the intended parents, and transferring the embryos to the uterus of the surrogate. Most surrogacy performed these days is the latter type, so we will focus on gestational surrogacy here. In general, gestational surrogacy is indicated when a woman can produce viable embryos, but cannot carry a pregnancy. Examples include:

- 1) Previous hysterectomy
- 2) Congenital absence of the uterus
- 3) Congenital malformations of the uterus
- 4) DES uterus
- 5) Uterine pathology such as fibroids or scarring of the cavity
- 6) Maternal disease that makes pregnancy dangerous, such as severe diabetes, renal failure, lupus, or rheumatoid arthritis
- 7) Rh Isoimmunization
- 8) Some breast cancers (there are differences of opinion here)
- 9) Multiple IVF failures with good embryo quality

Since there are potentially significant legal, financial, ethical, and psychological issues with surrogacy, we encourage couples to work with agencies that have experience in

selecting surrogate mothers and provide the infrastructure to deal with these issues. Surrogate mothers should have at least one biological child that they have raised. Compared to egg donors, surrogate mothers undergo a much more intensive psychological assessment. Most applicants are rejected following this initial evaluation. After completing the psychological evaluation, the candidate undergoes a medical evaluation, similar to the one performed on egg donor recipients.

A good contract between the gestational surrogate and her couple is critical. Examples of covered issues are: How many embryos can be transferred? What happens if there is a multiple pregnancy? Will the surrogate permit a termination if an abnormal fetus is discovered? Health insurance, life insurance, clothing allowances are discussed. Agreements regarding nutrition, smoking, travel, and other behaviors may be covered. The couple and the surrogate remain in contact throughout the pregnancy. Surrogacy is about relationships, and this aspect can be very rewarding to all parties involved.

## **Results**

In general, results with gestational surrogacy are excellent, but vary according to the age of the egg provider. In a given age group, results with surrogacy tend to be higher than with routine IVF. This is largely due to patient selection. Proper selection of candidates implies that these women could have children on their own, if it were not for the medical problem that lead them to surrogacy. Good embryos placed into a well-prepared, proven uterus theoretically optimizes the IVF process.

## **How the Process Works**

In reality, egg donation and gestational surrogacy are similar techniques. The only difference is who goes home with the baby! In general terms there is an egg provider, and a recipient. The cycles of the two women are synchronized using a combination of birth control pills and Lupron. Upon stopping the pills, the egg provider begins using one of the brands of injectable gonadotropins to stimulate multiple egg production. The use of these drugs requires several office visits for blood and ultrasound monitoring to determine how many eggs are being produced and when they are likely to be mature. When the follicles seem large enough, a single injection of hCG is given. The transvaginal ultrasound guided egg retrieval is timed to this injection. Most centers perform this procedure with conscious sedation, especially with egg donors.

While the egg provider is taking her injections, the recipient begins twice weekly injections of estrogen. Around the time of the retrieval, the recipient adds some combination of vaginal and injectable progesterone, thus creating an artificial cycle timed to the egg provider's cycle. The eggs are combined with the sperm from the intended father, and three days later a small number of embryos is transferred to the recipient's uterus. Since success rates are rather high, we discourage transferring large numbers of embryos, and in many of our egg donor cycles, or surrogacy cycles with young eggs, we often transfer two embryos with excellent results. Extra embryos can be frozen for future use.

As with any medical procedure, there is a small potential for risk. For the egg provider, the retrieval procedure can cause internal bleeding or infection. We give prophylactic antibiotics to greatly reduce the risk of infection. Occasionally, the egg provider experiences the complication of hyperstimulation syndrome. This results from an

overabundant response to the stimulation drugs. When this occurs, women experience significant abdominal distension and pain. Since these women will not be pregnant, the symptoms quickly recede with the menses, and most of these women can be managed successfully on an outpatient basis.

In contrast, egg donor recipients and surrogates face few risks from their procedures. The main risks are associated with pregnancy itself, and multiple births is an important issue. That is why it is important to use caution when deciding how many embryos to transfer in these often optimal situations.

## **CONCLUSION**

While many ethical questions are still being debated in society, third-party parenting, when applied appropriately, can help many couples have a family that they otherwise could not achieve. The high success rates seen in our third-party parenting program demonstrates the true potential of assisted reproductive procedures, when all elements of the reproductive process are optimized.