

The Future of Fertility

The field of infertility treatment has yet to give birth to some of its most exciting developments.

BY COURT PEARMAN

Dr. Geoffrey Sher has been on the cutting edge of fertility since the field got its start in the early 1980s. He founded the Sher Institutes for Reproductive Medicine (SIRM), responsible for many industry firsts.

SIRM is currently perfecting a process for selecting and freezing chromosomally intact eggs that yields a post-thaw pregnancy rate about 8 times better than current methods.

"In-vitro fertilization will never be the same," says Dr. Sher, who plans to open the doors to the world's first commercial sized human egg-bank in early 2008. Before now, donor eggs needed to be fertilized fresh, requiring the donor and recipient to be treated simultaneously in the same location.

Physicians are also trying to find better ways to improve the quality of embryo selection. SIRM just introduced a new embryo selection method called Comparative Genomic Hybridization (CGH) that allows selection of "competent" embryos through analysis of each of its chromosomes.

Chromosomally abnormal embryos are a major factor in IVF failure, miscarriages and birth defects. This method has improved IVF success rates and reduced the number of twins and triplets that occur with IVF treatments.

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embryo. This method has improved the success of pregnancies and reduced the number of twins and triplets that occur with IVF treatments.

The future of fertility is not just in technological advances—it is in service advancements. Xytex, a sperm bank in Atlanta, GA matches the characteristics of infertile males with the characteristics of donors, getting children as much like the men raising them as possible. Xytex has also begun psychological testing and profiling to deepen the process of donor selection.

"People are becoming more open," says Danielle Wong-Moores of Xytex, regarding fertility and surrounding issues. This openness allows events like the Family Matters, fertility and adoption conference in San Francisco on February 10. Family Matters is hosted by the American Fertility Association and will feature many of the world's leading experts sharing fertility's latest developments.

2008:

The year the Sher Institute plans to open the doors to the world's first commercial sized human egg-bank.

Third Party Reproduction

Egg Donation, surrogacy and sperm donation present viable and realistic options for thousands of hopeful parents every year.

BY COURT PEARMAN

For some couples coping with infertility, bringing a third party into the picture proves to be the most viable option. Egg donation, surrogacy, and sperm donation are all methods that allow the couple trying to conceive to still take part in the creation of the child, while getting help from another person.

"There are a lot of choices out there," says Danielle Wong Moores, an expert from Xytex, one of the nation's leading sperm banks that has been in business for over thirty years.

Sperm donation can be one of the least expensive ways to deal with infertility. Xytex offers several packages that can include childhood and adult photos of the donor, personality tests, medical history and audio recordings. Xytex even offers the option of identity disclosure donors, released when the child turns eighteen.

Option

Egg donation is an option for many women who want to give birth, but cannot produce an egg. "Egg donation

is a safe option," says Dr. Brad Kolb of the Huntington Reproduction Center (HRC) in Pasadena, CA. "It doesn't put lives at risk, nor does it compromise the fertility of the donor." HRC offers extensive profiles and even videos of donors to help clients choose the right woman for them.

Surrogacy is an option for those who cannot carry their own child. If the woman can produce her own eggs, they may be placed in the surrogate mother. Otherwise, the surrogate mother is simply impregnated with the father's semen. Many modern women are career-minded during the earlier part of their life, but women begin to lose their fertility after about age 35. According to Dr. Kolb, trying to have a child earlier in life could be one simple solution for many couples.

"Most women who need fertility assistance simply waited too long," says Dr. Kolb.



How to Preserve Future Possibilities

It's time to explore egg freezing, the latest fertility preservation technology for women considering starting a family later in life, writes Matt Gnaizda.

In the past five years, new technology has become available in the United States that allows women to freeze their eggs, preserving them for future use. This means there is a chance that three, five, or even ten years down the road a woman could use the eggs to become pregnant—even after menopause, theoretically, because the uterus can retain its functionality.

However, while egg preservation through freezing has been around since the 1980s, egg freezing is still classified as an experimental technology. National data on results is limited, but experienced clinics in the United States that have been using the technology for several years should at least have their own data to provide to inquiring women. Worldwide, over 500 healthy babies have been born from previously frozen eggs.

The process involves extracting eggs from the woman and cooling them with liquid nitrogen to a frigid 196°C. At this temperature, there is no metabolism or cellular activity, so the eggs can be preserved indefinitely. At a future time, when pregnancy is desired, the eggs are thawed. They are then fertilized and returned to the uterus using standard in vitro fertilization (IVF).

Dr. John Jain, head of the Egg Freezing Center in Santa Monica, California, says his clinical trials have produced more than 15 healthy babies so far. The pregnancy rate for his own egg freezing patients is comparable to the national average for IVF with fresh eggs. The biggest challenge people interested in egg freez-

Fact:

A LONG TIME FROZEN

Worldwide, the longest an embryo has been frozen and resulted in a live birth is 13 years. To date, more than 150,000 births have occurred from the transfer of previously frozen embryos. Most of the research on egg freezing has been in Japan and Korea, and only more recently gathered steam in the United States.

ing face, says Dr. Jain, is lack of accurate information. He says a woman might approach a fertility expert to learn more, but that fertility expert is not necessarily an expert in egg freezing.

In many cases, Dr. Jain says, "Women are freezing their eggs without really being informed and educated about this medical breakthrough. They aren't given, 'Here's our pregnancy rates, here's the number of eggs we need to freeze to give you a baby, here's the outcomes, here's the miscarriage rate.'" Because of this, women are often given bad or misleading data, leading to poor choices of clinics and poor results.

"Women need to ask the right questions to help make an informed decision about their genetic legacy," says Dr. Jain.

Egg freezing is not cheap; it usually will cost between \$10,000 and \$20,000. But in a scenario where there may be no chance for a do-over the cost of a high-quality clinic may be worth it.

TREATMENT

After diagnosis a couple must help the physician choose a treatment. Be informed. Know your options. Get the details.

| SOME AVAILABLE TREATMENTS | GENERAL QUESTIONS TO ASK |
|---|---|
| Egg donation, surrogacy and sperm donation | Are there natural or alternative solutions to consider? |
| In vitro fertilization (IVF) | Is emotional or psychological counseling necessary? |
| Preimplantation Genetic Diagnosis (PGD) | Is it a health risk for us? |
| Preimplantation Genetic Screening (PGS) | What is the cost? Is financial assistance available? |
| Pharmaceuticals | How invasive is the procedure to my body? |
| Alternative Treatments, including acupuncture | Do we want to involve a third-party in our conception? |



Egg Freezing Center

HIGHEST SUCCESS RATE IN THE U.S. FERTILITY PRESERVATION



The Egg Freezing Center (EFC) is led by Dr. John Jain, an internationally recognized expert in egg freezing research with broad experience in all areas of fertility treatment. Dr. Jain and EFC provide egg freezing services utilizing award-winning technologies not found anywhere else. With the highest pregnancy rates in the country and an experienced, compassionate staff, EFC can help you take control of your fertility.

EFC has a fertility preservation plan for women recently diagnosed with cancer. If you would like more information about this program, please contact our office.

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