

IVF Update

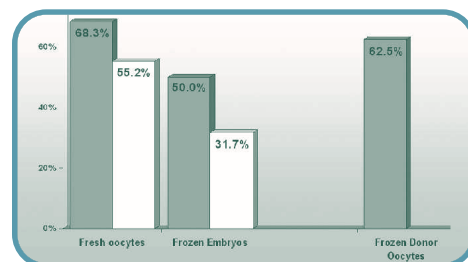
In vitro fertilization continues to offer the highest likelihood of pregnancy among all fertility treatment options. When utilized to overcome a known impairment, such as tubal obstruction, endometriosis, pelvic adhesions, or severe male factor issues, the likelihood of success is very high. For couples with unexplained infertility, pregnancy rates with IVF per attempt are higher than other treatment options available, but success is limited by impairments that are not overcome through this process, such as suspected oocyte quality or ovarian reserve issues, which diminishes with age.

The IVF rates at Connecticut Fertility Associates reflect these realities. At CFA, pregnancy rates are important, but our treatment decisions are not influenced by a desire to maintain high numbers. Providing each individual couple with the highest chance of success, even if the expectations are low, will continue to be our goal of patient care. Ovarian reserve testing can identify women who have a lower likelihood of success with any treatment option, but no test can absolutely predict pregnancy, and no requisite "good" ovarian reserve test is needed to qualify for IVF.

Oocyte donation overcomes poor egg quality and provides the highest likelihood of success with assisted reproduction. "Our very high rate of success with egg donation is not only encouraging for patients who need an egg donor," says Dr. Shaun Williams, "but it is also good quality assurance for the processes that occur in and out of the laboratory. When we have good quality eggs coming into the lab, pregnancy is the result a majority of the time."

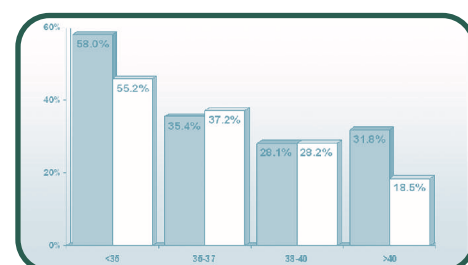
For any additional information regarding the in vitro fertilization program at Connecticut Fertility Associates, please email us at AskUs@CTfertility.com, or contact our IVF coordinator Jill Delavega at Jill.Delavega@CTfertility.com.

CFA Egg Donation Pregnancy Rate (2008)



■ CFA □ National Average*

CFA IVF Clinical Pregnancy Rate (2008)



■ CFA □ National Average*

*SART national data, 2007

Embryology at CFA: Applying advanced science to patient care on a daily basis

"Laboratory" is too sterile a word for such a fertile place!

The Assisted Reproductive Technology laboratory at Connecticut Fertility Associates is where advanced science and technology merge on a daily basis to help couples and the physicians at CFA achieve the goal of a family. From individual gametes to advanced stage embryos (blastocysts), the first few days of any child conceived following in vitro fertilization takes place under the caring and watchful eyes of the embryology team at CFA.

In charge of maintaining this fertile "first home" for embryos is the IVF Laboratory Director for CFA, Ed Stehlik, ELD. Ed has been an Embryology Director for 24 years, having joined one of the first IVF labs in the midwest during the early days of in vitro fertilization (IVF). He is certified as an Embryology Laboratory Director by the American Association of Bioanalysts. Joining Ed is the Scientific Director at CFA, Joni Stehlik. Joni has been an embryologist for 18 years, having acted as full-time Laboratory Director in other labs prior to joining CFA. Joni has been a pioneer in the field of embryo and oocyte cryopreservation using the vitrification process, having reported the first pregnancy and delivery in the United States resulting from a vitrified frozen egg. "Embryology has changed significantly over the past 24 years," comments Ed Stehlik. "I have had the opportunity to be at the forefront in the development and use of techniques from intracytoplasmic sperm injection (ICSI), assisted hatching, PGD biopsy, and oocyte cryopreservation. It is very rewarding for me personally to be part of these scientific advancements that ultimately bring joy to so many families."

Once the follicular fluid is collected by the Reproductive Endocrinologist at the time of the egg retrieval, it is up to the embryology team to identify and isolate the oocytes, prepare eggs and sperm for fertilization, and perform intracytoplasmic sperm injection (ICSI) if necessary. Fertilization is assessed the next day, and the embryos are cultured in sequential media over the next 2-4 days. The embryo biopsy procedure used for pre-implantation genetic diagnosis (PGD) is also performed by the embryology team, and the embryologist's assessment of quality helps determine how many embryos should be transferred by the Reproductive Endocrinologist. Microscopic laser-assisted "hatching" of the embryos can be performed by the embryologists, if necessary, prior to the embryo transfer.

Quality assurance measures are performed daily. Like in most labs or procedure rooms, sterility must be maintained, yet the environment within the lab must also be ideal to allow growth. Maintaining our full-time laboratory is essential to ensure that culture conditions are ideal at all times and that the laboratory is ready to provide embryo care when dictated by a woman's menstrual cycle. Our full-time embryology staff is present 7 days a week to offer the services necessary to ensure success, and the embryology team always welcomes any guests who may want to experience this aspect of the reproductive process first hand. The laboratory is located at our office at 4920 Main St, just off the Merritt Parkway at exit 44 in Bridgeport/Trumbull. For more information about the lab at CFA, contact Ed Stehlik, or email Ed.Stehlik@CTfertility.com.



UPCOMING EVENTS

EDUCATION ON THE WEB

Listen to educational broadcasts of the Connecticut Fertility Connection online at:

www.connecticutfertility.com/radioshows

EDUCATIONAL SEMINARS

IVF AND EGG DONATION: IS IT RIGHT FOR YOU?

with Dr. Doyle
Tuesday 9/15 at 7:00 p.m.
Bridgeport office

INFERTILITY AND TREATMENT OPTIONS

with Dr. Williams
Wednesday 11/11 at 7:00 p.m.
Bridgeport office

Did You Know???

Certification of lab quality is required by the Society of Assisted Reproductive Technology, and the lab at CFA has been College of American Pathologists (CAP) certified following all on-site visits.

4920 Main Street
Bridgeport, CT 06606

MICHAEL B. DOYLE, M.D.
SHAUN C. WILLIAMS, M.D.

CONNECTICUT
FERTILITY ASSOCIATES



PCOS Answers

If you or your patients have questions regarding PCOS, be sure to take advantage of local expertise provided by CFA's board certified reproductive endocrinologists. Dr. Shaun Williams moderates the polycystic ovarian syndrome forum for INCIID, the International Council on Infertility Information Dissemination, providing educational information and advice for all aspects of this disorder. Log on to www.inciid.org/forum to view the PCOS forum as well as other moderated topics. Additionally, patients can contact the physicians at CFA for any questions they may have regarding Reproductive Endocrinology and Infertility via email, at AskUs@CTfertility.com.



Preventing Another "Octomom"

The national spotlight on the first octuplets to survive the neonatal period has diminished somewhat, but the concern about multiple births within the reproductive endocrinology community continues. The occurrence of a high order multiple gestation following an IVF or frozen embryo transfer cycle is an undesirable outcome, but without legislative statutes controlling the risks that are taken to achieve pregnancy, our community must rely on guidelines developed by our professional organization, the American Society for Reproductive Medicine.

It is impossible to know with certainty which embryos within the laboratory are going to implant and lead to pregnancy. The ASRM guidelines have been developed to help select an appropriate number of embryos, based on both embryo quality and a woman's age, to maximize the occurrence of pregnancy while minimizing the risk of multiples. As a woman's age progresses past 35 oocyte, quality diminishes, and pregnancy becomes less likely to occur with any treatment, IVF included. More embryos are usually transferred as a woman's age increases.

Other factors are also considered when determining how many embryos to transfer. Prior treatment failure, uterine conditions, and diagnosis all can affect the likelihood of embryo implantation. Extended culture to the blastocyst stage of development allows a degree of natural selection to occur within the laboratory, and if a woman of any age has blastocysts available, fewer embryos are transferred. But morphologic assessments are imperfect, and even blastocysts can be very abnormal with no chance to implant once transferred. The safest choice is not often clear, even when presented with these guidelines.

Transferring a single embryo can provide the lowest risk for multiples, and in very select situations, pregnancy rates have been shown to be 'as good' as the transfer of two embryos, while significantly decreasing the risk of twins. However, a recent Cochrane meta-analysis of randomized studies comparing single to double embryo transfer for all women undergoing IVF demonstrated a 94% reduction in the incidence of twins, but also a 38% lower likelihood of pregnancy. For many couples investing a significant amount of time, financial resources, and emotional energy in the IVF process, transferring only a single embryo is an option not readily considered.

Since the introduction of ASRM guidelines in 1997, the average number of embryos transferred has continued to decrease, as has the multiple pregnancy rate. In 2006 there were 28,404 live births following IVF, of which 28.8% were twins and 1.9% were triplets or higher. At Connecticut Fertility Associates in 2008, 22.7% of IVF pregnancies were twin gestations, and 1.5% of pregnancies were triplet gestations.

Recommended limits on the numbers of embryos to transfer.

Prognosis	Cleavage-Stage Embryos ^a			
	Age < 35	Age 35-37	Age 38-40	Age > 40
Favorable ^b	1-2	2	3	5
All others	2	3	4	5

Prognosis	Blastocysts ^a			
	Age < 35	Age 35-37	Age 38-40	Age > 40
Favorable ^b	1	2	2	3
All others	2	2	3	3

^a See text for more complete explanations. Justification for transferring more than the recommended number of embryos should be clearly documented in the patient's medical record.

^b Favorable = First cycle of IVF, good embryo quality, excess embryos available for cryopreservation, or previous successful IVF cycle.

ASRM Practice Committee. Guidelines on number of embryos transferred. Fertil Steril 2008.

ASRM Practice Committee. Guidelines on number of embryos transferred. Fertil Steril 2008.
Fertility and Sterility Vol. 90, Suppl 3, November 2008

CFA Team Presents Egg Freezing Data in Europe

Connecticut Fertility Associates has recently presented the latest results from its oocyte cryopreservation program at the annual meeting of the European Society of Human Reproduction and Embryology (ESHRE) held in Amsterdam in June 2009. **The team at CFA is one of the first clinics to demonstrate that pregnancy rates for couples using frozen/thawed donor oocytes are just as high as for couples using donor oocytes collected following a fresh stimulation.**

According to Dr. Michael Doyle, donor eggs that have been cryopreserved at CFA have demonstrated a survival rate of 98.2% (108/110 eggs survived the thaw process). Ninety-two of these eggs fertilized normally using the ICSI process for a fertilization rate of 85.2%. Six of the nine patients receiving thawed donor oocytes had a successful clinical pregnancy (66.7%). Of the 85 couples undergoing a fresh donor egg cycle during this time, 69.4% achieved pregnancy. There was no statistical difference between the pregnancy rates for each of these groups. Dr. Doyle adds, "Although oocyte cryopreservation is still considered an experimental procedure by the American Society for Reproductive Medicine, ongoing studies like this have contributed to the body of knowledge demonstrating acceptable clinical outcomes following egg freezing." He also added that other reports have demonstrated no significant differences in overall pregnancy outcomes and early development of children born following the use of cryopreserved oocytes.

"Until now, patients wishing to use oocytes from a young donor have had to use the fresh oocytes immediately," states Joni Stehlik, Scientific Director at CFA. "There are several advantages to using frozen oocytes, including the removal of the need to synchronize the donor's and recipient's cycle, and the ability to quarantine the eggs for more ideal infectious disease testing. Additionally sometimes the "perfect donor" for a particular patient may have moved away or stopped donating, but we stored some of her eggs."

According to Dr. Doyle, "The Egg Bank allows us to offer our patients both locally and from around the world an extreme degree of choice, convenience and safety that has not been available in the past, at a lower overall cost and with the same rate of success as fresh cycles." An additional use of oocyte cryopreservation would be for women without a partner who may wish to preserve fertility prior to treatments which may result in loss of ovarian function, such as chemotherapy or surgery, as well as for women who may want to delay childbearing due to other issues. The data from this current study allows us to expect that pregnancy rates for these women cryopreserving their own eggs should be as high as during a fresh cycle as well. For more information regarding oocyte cryopreservation, email us at AskUS@CTfertility.com, or contact our Scientific Director at Joni.Stehlik@CTfertility.com.

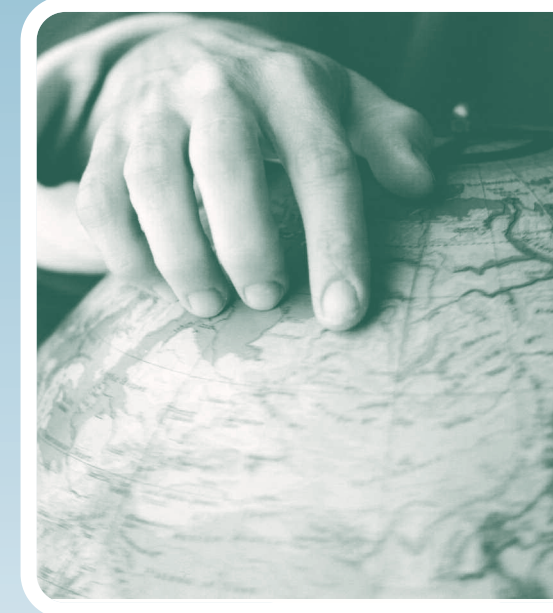


CFA GOES GLOBAL:

Update on egg donation and surrogacy choices for international patients from more restrictive countries

Due to the restrictive laws in many countries concerning egg donation and gestational surrogacy, our egg donation program has seen a large increase in use by both international recipients and intended parents using American surrogates. In 2008, eighteen of the fifty (36%) intended parents who utilized our donor oocyte/surrogacy program resided outside the United States. So we asked ...Does the more complicated travel and synchronization arrangements affect pregnancy outcomes for our international patients who use American surrogates?

Our findings...
Regardless of where our clients call "home," their chances of achieving a successful pregnancy with a CFA donor in a surrogacy cycle was over 80% on the first try.



Do You Have A Question?

E-mail your questions to us at AskUs@CTfertility.com

Be in the know... Sign up now!

for the CFA e-mail list and receive the most up to date information, announcements, newsletters, and articles about new developments, fertility studies, and general news pertaining to our center. Sign up now on [www. CTfertility.com](http://www.CTfertility.com), or call one of our offices to register your email