

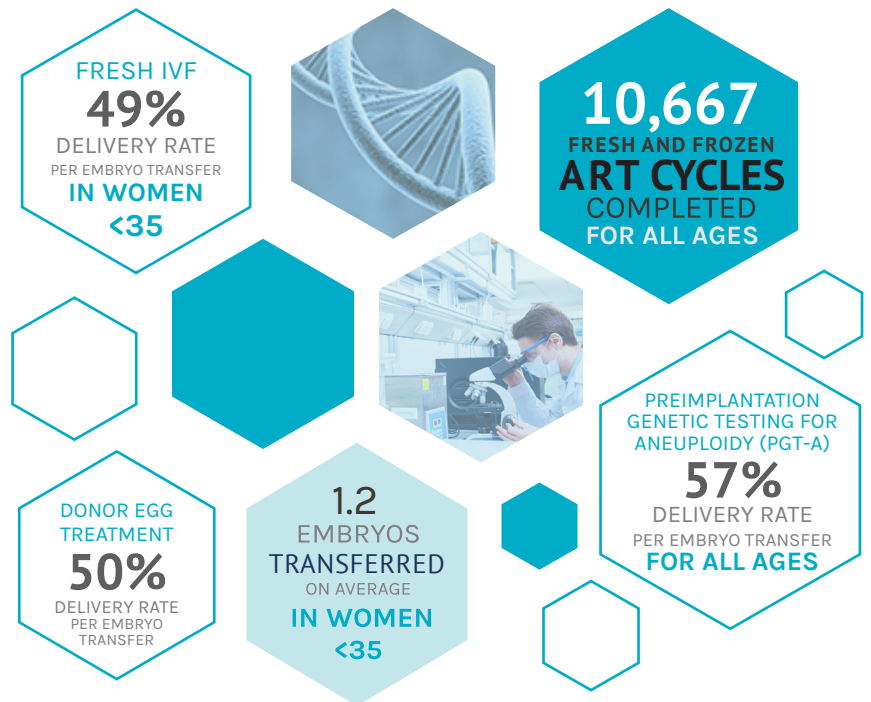
2017 SGF Assisted Reproductive Technology Annual Report

In Vitro Fertilization, Donor Egg Treatment & Egg Freezing Programs in Review

The release of our 27th Assisted Reproductive Technology (ART) Annual Report represents an important part of the culture at Shady Grove Fertility. It is of the utmost importance to us that we provide accurate information about our success rates for each treatment program.

As we continue to refine our in vitro fertilization (IVF) treatment protocol through improvements made to freezing technology and applying evidence-based practice guidelines, we are able to help more patients reach their dreams of parenthood. The shift in preference toward more frozen embryo transfers (FET) and fewer fresh transfers continued this year given these advancements.

The evolving IVF Program along with our Egg Freezing Program and internationally recognized Donor Egg Program are giving more options to more patients on their path to parenthood. For these reasons and more, the physicians and staff at Shady Grove Fertility are proud of the success achieved for our patients in 2017.



2017 FRESH IVF PROGRAM STATISTICS FOR WOMEN UNDER 35

Laboratory	Rockville, MD	Towson, MD	Chesterbrook, PA	SGF Total
Initiated Cycles	1,480	535	196	2,211
Egg Retrievals (ER)	1,412	508	188	2,108
Embryo Transfers (ET)	894	340	52	1,286
Clinical Pregnancies	509	187	34	730
Clinical Pregnancy Rate per ET	57%	55%	65%	57%
Average Embryos Transferred	1.2	1.2	1.1	1.2
Miscarriages	69	26	5	100
Ongoing Pregnancy or Live Birth	440	161	29	630
Ongoing Pregnancy or Live Birth per ET	49%	47%	56%	49%

SGF Autologous In Vitro Fertilization Program Rockville, MD; Towson, MD; and Chesterbrook, PA Jan. 1, 2017-Dec. 31, 2017

Advances in IVF Care Are Helping More Women Conceive

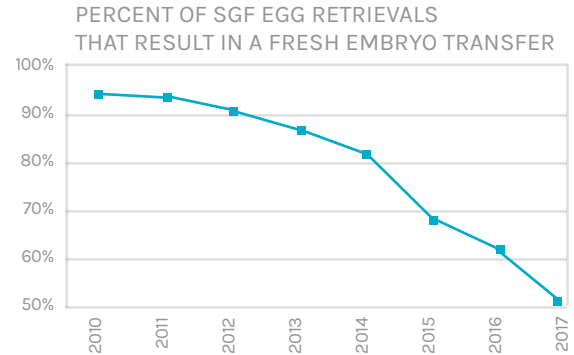
In 2017, the number of fresh transfers that resulted from each egg retrieval continued to decline. In fact, 2017 showed a 12% decrease to an all-time low of 50 percent of retrievals resulting in a fresh transfer. This shift in treatment approach is the result of research that showed freezing all embryos after retrieval to be later thawed and transferred increased the outcomes for certain patients. Common reasons for this approach center around abnormal hormone levels at the time of transfer, the increased use of embryo chromosomal testing, and the preference to transfer one embryo to lower the likelihood of multiple gestation without compromising success rate.

Freeze-All Cycles Bypass the Negative Impact of High Progesterone Levels

In about 5 percent of all fresh cycles, the progesterone level in the late follicular phase is found to be high, resulting in premature endometrial mutation and decreased likelihood of implantation and subsequent pregnancy. Freezing all of the available embryos allows preparation of an optimal endometrium giving each embryo the greatest chance of success in a subsequent FET cycle.

Embryo Genetic Screening Improves Pregnancy Outcomes

As a woman ages, the quality of her eggs begins to decline. As a result, there is a higher incidence of chromosomally abnormal embryos that decreases her chances of pregnancy and increases her risk of a miscarriage. In fact, the percent of aneuploid blastocysts is 30 percent in women under 35 and 70 percent in women over 40. Unfortunately many older women will have no embryos to transfer. For many patients, however, the best option is IVF with preimplantation genetic testing for aneuploidy (PGT-A) of the embryos, followed by a frozen embryo transfer (FET) with prescreened embryos. Prior to the transfer, each embryo is screened to identify the chromosomally normal from the abnormal allowing for improved embryo selection and treatment outcomes. **When using PGT-A with IVF (formerly known as preimplantation genetic screening or PGS), pregnancy and live birth rates per embryo transfer are similar for all women, regardless of age.**



2017 PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY (PGT-A) AND INITIATED FET CYCLE OUTCOMES

Maternal Age	<35	35-37	38-40	>40	Total
Initiated Frozen Embryo Transfer (FET) Cycles	243	202	221	84	750
Clinical Pregnancy Rate (% of FET)	158 (65%)	143 (71%)	142 (64%)	57 (68%)	500 (67%)
Miscarriages	20	23	19	7	69
Ongoing Pregnancy/Live Birth per FET	138 (57%)	120 (59%)	123 (56%)	50 (60%)	431 (57%)

SGF Autologous PGT-A Program Rockville, MD Jan. 1, 2017-Dec. 31, 2017

Single Embryo Transfers Reduce the Probability of a Multiple Pregnancy

Shady Grove Fertility continues to be a proponent of elective single embryo transfers (eSET) to reduce the probability of a multiple pregnancy and increase the number of healthy singletons born, reducing the risks to both baby and mother. Advanced technologies and our lab expertise allow embryologists and physicians to examine embryos more carefully and select with confidence the one with the highest chance of implanting and resulting in a successful pregnancy. In 2017, 80% of all frozen embryo transfers were single embryo transfers for patients under 38 years old. For patients who opted to screen their embryos with PGT-A, 95% were single embryo transfers.

New Physicians to Serve Your Patients



NANCY DURSO, M.D.
Fredericksburg, VA



ERIKA B. JOHNSTON-MACANANNY, M.D.
Richmond, VA



BRIANNA SCHUMACHER, M.D.
Center City, PA
Chesterbrook, PA



CELSONO SILVA, M.D., M.S.
Tampa Bay, FL



NATALIE STENTZ M.D.
Marietta, GA

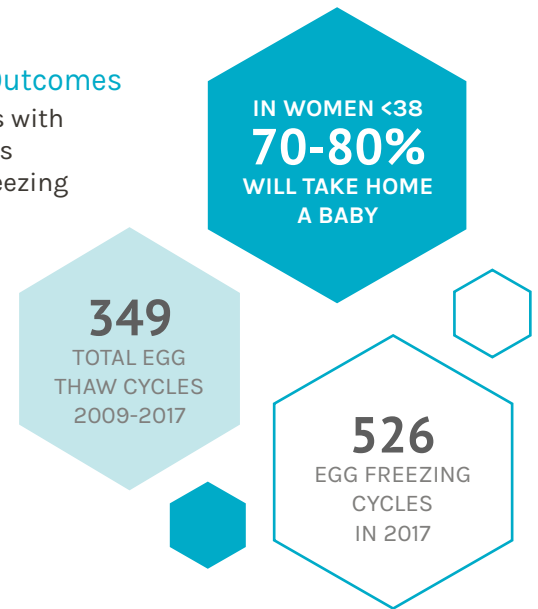
More Women than Ever Are Choosing to Freeze Their Eggs

As the average age a woman has her first child continues to increase, so does the number of women electively choosing to freeze their eggs to preserve their fertility. Egg freezing is giving women the time that their biology won't. In the last 9 years, we have seen a steady increase in the number of women who choose to freeze their eggs, making the process even more common today than ever before.

Lab Expertise and Published Egg Freezing Data Drive Successful Outcomes

Shady Grove Fertility is one of the only fertility centers in the United States with published pregnancy outcomes from thaw data from frozen eggs. With this information, women have a better idea of what to expect from their egg freezing cycles in terms of the probability of taking home one or more children.

Not every lab has the expertise and experience to vitrify (flash freeze) eggs and have them survive the thaw, fertilize, and develop into an embryo that will allow a pregnancy and delivery. The techniques used to freeze and thaw eggs involve specific highly specialized protocols, extensive experience of the embryologist, and very careful and precise technical skill. SGF performs over 500 egg freezing cycles per year and the number of egg thaw cycles each year continues to grow. Over the last year, the number of egg thaw cycles grew 35% to a total of 349 cycles.



EGG FREEZING PROGRAM STATISTICS 2009-2017

Age at Time of Freezing	<35	35-37	38-40	>40	Total
Total Number of Egg Thaw Cycles	129	90	92	38	349
Total Number of Eggs Thawed	1,036	935	912	391	3,274
Average Number of Eggs Per Thaw	8.0	10.4	9.9	10.3	9.4
Cumulative Ongoing Pregnancy/Live Birth Rate per Egg Thaw	41%	42%	30%	42%	39%
Fertilization Rate	71%	68%	69%	72%	71%
Number of Fresh Embryo Transfers (ET)	95	56	56	22	229
Cycles with Resulting Cryopreservation (%)	36%	57%	46%	50%	45%
Average Number of Embryos Cryopreserved	3.5	3.5	4.0	2.3	3.5

SGF Elective and Non-Elective Egg Freezing Program Rockville, MD Jan. 1, 2009-Dec. 31, 2017

Shared Donor Egg Program Provides More Affordable Care without Compromising Pregnancy Rates

Donor egg treatment is often the answer for women unable to conceive with their own eggs. The treatment process using donor egg is very similar to IVF except the egg used comes from a prescreened donor between the ages of 21 and 32.

Historically, donor egg treatment was not accessible for many due to the cost. The introduction of SGF's Shared Donor Egg Program reduced the cost of treatment up to 50 percent, making it more feasible for patients.

Donor Egg Treatment	Program Enrollment	Clinical Pregnancy Rate per ET	Miscarriage per Clinical Pregnancy	Ongoing Pregnancy/Live Birth per ET
1 Recipient/1 Donor	393 (49%)	62%	16%	52%
2 Recipients/1 Donor	275 (35%)	61%	19%	49%
3 Recipients/1 Donor	126 (16%)	57%	23%	44%

SGF Donor Egg Program Rockville MD, Towson MD, Chesterbrook PA, Atlanta GA, Jan. 1, 2017-Dec. 31, 2017

Building Families Together

We Are Partners in Care

For the majority of Shady Grove Fertility patients, their successful treatment starts with you, and your timely referral to one of our providers. The trust between SGF and over 2,000 referring physicians every year is the reason why over 50,000 SGF babies have been born over the last quarter century. We are honored and humbled by your continued support.

Look inside for an in-depth view into the successful programs that are helping your patients conceive at Shady Grove Fertility.



1.888.348.5599
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SHADY GROVE FERTILITY

