



## THE ASSISTED FERTILITY PROGRAM



# INTRODUCTION



*Having a child is one of life's most emotional experiences. Unfortunately, for the one in six couples that fail to conceive, the anticipated joy can become wrenching disappointment.*

*Advances in medical technology have made pregnancy a reality for many infertile couples.*


*Today, comprehensive assisted fertility services are available right here at home in North Florida and Southwest Virginia, enabling more couples to realize their dreams of having a family.*

**ASSISTED  
FERTILITY**  
PROGRAM 



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## IN-VITRO FERTILIZATION

A portrait of Dr. Marwan Shaykh, M.D., a board-certified obstetrician/gynecologist. He is wearing a white lab coat over a light blue shirt and a red and blue striped tie. He is looking directly at the camera with a neutral expression. The background is a soft, out-of-focus grey.

The Assisted Fertility Program is proud to offer a comprehensive assisted fertility program for the North Florida and Southwest Virginia regions. Program director Marwan Shaykh, M.D., is a board-certified obstetrician/gynecologist with special certification in reproductive endocrinology and infertility. He is a recognized pioneer in the field of reproductive medicine. Dr. Shaykh established the first in-vitro fertilization pregnancy program in North Florida in 1985, just four years after the first IVF program was launched in the United States, and has assisted in the successful pregnancies and births of more than 1,000 happy, healthy babies.

The Assisted Fertility Program offers a full array of advanced reproductive technologies to help female and male infertility patients. Among the treatments offered are In-vitro Fertilization, Gamete Intrafallopian Tube Transfer, and Intracytoplasmic Sperm Injection. The program also offers controlled ovarian stimulation with intrauterine insemination, reproductive surgery, and andrology testing that encompasses a wide variety of male fertility evaluation.

At the Assisted Fertility Program, we are totally committed to providing the most current medical and scientific services available in an environment of care and emotional support.

## BEFORE YOUR TREATMENT



A thorough infertility assessment is necessary for us to determine the type of treatment best suited to your situation. If you have undergone infertility testing elsewhere, rest assured that these tests will be repeated only if absolutely necessary. Before starting any treatment an ultrasound scan will be performed to evaluate the condition of the ovaries and uterus. In some cases abnormalities that are evident on the pre-treatment ultrasound may require further investigation through laparoscopy or hysteroscopy. We may also recommend a hysterosalpingogram (HSG), a procedure in which dye is passed through the cervix into the uterus and fallopian tubes under X-ray control to reveal abnormalities in the uterus or fallopian tubes (hydrosalpinx). We also conduct blood tests to evaluate ovarian function.

It is important that any woman attempting pregnancy know whether or not she is immune to the Rubella virus. If you are unsure of your immunity, you will need to have a Rubella test performed prior to treatment.

Other tests that may be required include:

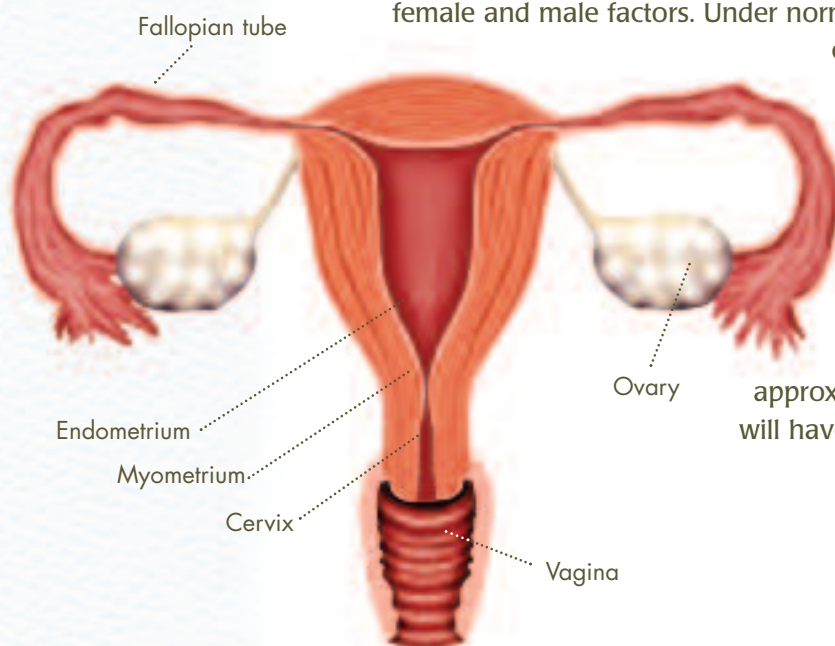
- Blood group and type
- Assessment of the blood profile for those women at risk for conditions such as sickle cell anemia, thalassemia, and cystic fibrosis
- Anti-phospholipid antibodies (APA) for women with a history of miscarriage
- Screening for sexually transmitted diseases (HIV, RPR, Hepatitis B and C, chlamydia, and gonorrhea)
- Semen analysis.

## CAUSES OF INFERTILITY

Approximately 15 percent of couples attempting pregnancy experience difficulty. Female factors are responsible for 40 percent of infertility cases; male factors, 40 percent of cases; and, in the remaining 20 percent of cases, a combination of female and male factors. Under normal circumstances, the

chances of pregnancy occurring as a result of unprotected intercourse during the fertile window of the cycle are about 25% per month.

After 12 months of attempting pregnancy, approximately 80% of couples will have conceived.





## FEMALE INFERTILITY PROBLEMS

A woman typically produces a single egg each month as a result of various hormonal changes. The egg develops within a fluid sac in the ovary (follicle) and is released upon maturation. It is then picked up by one of the fallopian tubes and moved toward the uterus. Common female infertility problems are caused by:

- Ovulatory disorders
- Tubal blockage
- Endometriosis.

### OVULATORY PROBLEMS

Ovulatory problems are the most common cause of female infertility and occur as a result of hormonal imbalance. This imbalance may arise within the hypothalamus, in the pituitary gland, or in the ovaries. Common culprits include stress, weight loss or weight gain, excessive prolactin production (the hormone that stimulates milk production in the breasts), thyroid gland problems, and polycystic ovarian disease.

### TUBAL BLOCKAGE

In normal circumstances the fallopian tubes act like fishing rods, picking up the released egg and assisting its move toward the uterus. Damage to the tubes may impede the pick-up or transport of the egg, thereby preventing fertilization. Tubal blockage can occur as a result of any infection that ascends into the tubes or that descends to the tubes from other sites in the peritoneal cavity, such as the appendix. It can also occur as a result of surgery. If fluid collects in the fallopian tubes it may be a source of chronic infection and may also be detrimental to the development of the embryo. Although some tubal blockages can be treated by microsurgical techniques, in many cases pregnancy can be achieved only through In-vitro Fertilization.



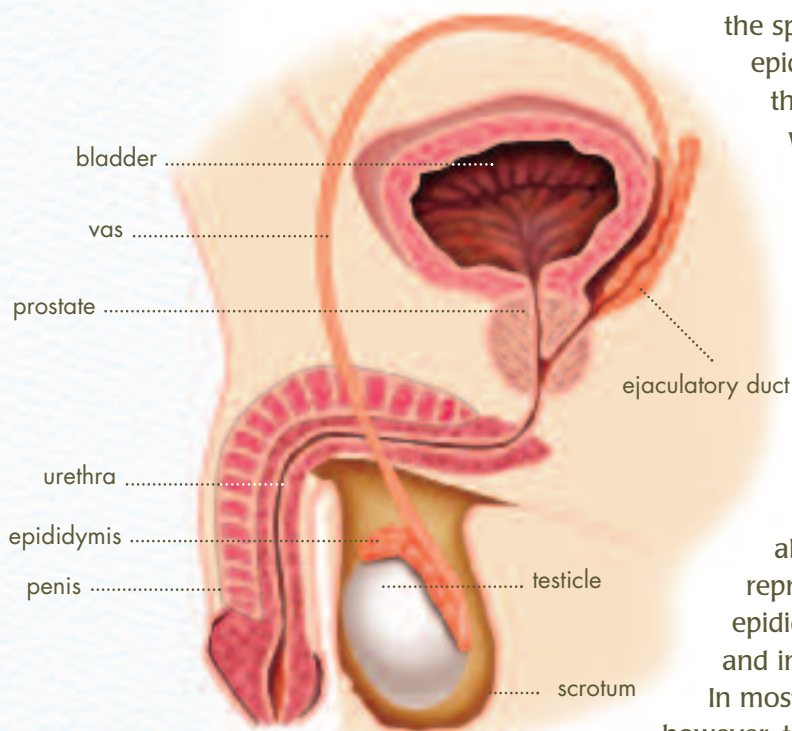
## ENDOMETRIOSIS

Endometriosis occurs when tissue similar to that which normally lines the womb exists at other sites in the pelvis. At the time of menstruation bleeding occurs from this tissue and may give rise to abdominal pain and painful intercourse. Blood-filled cysts may also develop within the ovaries. It is unclear why mild to moderate endometriosis is associated with infertility, but there are indications that endometriosis reduces the ability of the tubes to pick up the eggs. Laparoscopic laser treatment may improve the fertility of patients with endometriosis. Drug therapy is not effective. In cases of extensive endometriosis, especially in the presence of chocolate cysts (accumulations of old blood in the ovaries), correction through laparoscopy or conventional surgery may be required before embarking on IVF treatment. In-vitro Fertilization and Gamete Intrafallopian Transfer are appropriate treatments for infertility associated with endometriosis.

## MALE INFERTILITY PROBLEMS

After sperm are produced in the testes they move to the epididymis for maturation and storage. Completion of this process takes approximately three months. During sexual intercourse

the sperm abandon the epididymis and travel through the vas deferens, where they are mixed with fluid secreted from various glands. This mixture of sperm and seminal fluid, called semen, is deposited in the vagina of the female partner following ejaculation. Causes of male infertility can be divided into two categories – physical abnormalities of the male reproductive tract such as epididymal or vas obstruction, and impaired sperm production.



In most cases of male infertility, however, the cause is unknown. To determine male infertility a semen analysis

is conducted. A normal assessment reveals a sperm count of more than 20 million sperm per milliliter of semen. In normal semen, at least 50 percent of the sperm are actively moving and more than 14 percent of the sperm are shaped normally. Medication rarely improves sperm count. Until recently there has been no effective treatment for male infertility. However, since the introduction of Intracytoplasmic Sperm Injection in



which a single sperm is injected into the egg, the success rates for couples with male infertility problems have markedly improved.

## UNEXPLAINED INFERTILITY

Unexplained infertility affects approximately 15 percent of infertile couples. In the majority of these cases the failure to reach a diagnosis is not due to inadequate investigations, but to other factors that cannot be assessed using conventional tests. For example, it is not currently scientifically possible to determine if the eggs are actually released at the time of supposed ovulation; if the fallopian tubes are able to pick up the eggs; if the sperm are capable of reaching the site of fertilization; or, if the sperm can fertilize the egg. In cases of unexplained infertility, In-vitro

Fertilization is both diagnostic and therapeutic. It can provide information about the fertilizing capability of the sperm and also bypass a potential tubal egg pickup problem.

## TREATMENT OPTIONS

The Assisted Fertility Program provides a comprehensive array of reproductive technologies. Your treatment program will depend upon the needs and preferences of you and your partner and may consist of one or a combination of the following options:

- Controlled Ovarian Hyperstimulation followed by Intrauterine Insemination
- In-vitro Fertilization (IVF)
- Gamete Intrafallopian Transfer (GIFT)
- Zygote Intrafallopian Transfer (ZIFT) and Tubal Embryo Transfer (TET)
- Treatment of Male Infertility/Intracytoplasmic Sperm Injection (ICSI)
- Surgical Sperm Retrieval
- Assisted Hatching
- Ovum (Egg) Donation
- Embryo Freezing and Replacement of Frozen Embryos
- Sperm Freezing
- Pelviscopic and Uterine Surgery.

## CONTROLLED OVARIAN HYPERSTIMULATION

When fertility pills are ineffective, more potent fertility injections may be required to overstimulate egg production. Women receiving fertility injections are monitored with ultrasound and hormone assessment to control egg production and increase the likelihood of pregnancy.

## INTRAUTERINE INSEMINATION (IUI)

Intrauterine Insemination involves the injection of treated sperm from the partner or donor into the woman's uterine cavity. It is generally a painless procedure that takes only a few minutes and is performed in our office. The chances of success are increased if the insemination is combined with Controlled Ovarian Hyperstimulation. IUI should be performed when the fallopian tubes are healthy and the sperm preparation is satisfactory. It may also be a treatment option for women who have cervical mucus hostility, and in some cases, for unexplained infertility.

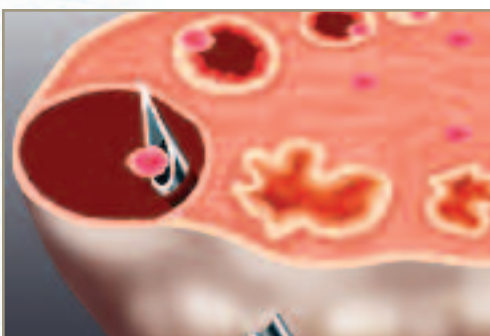
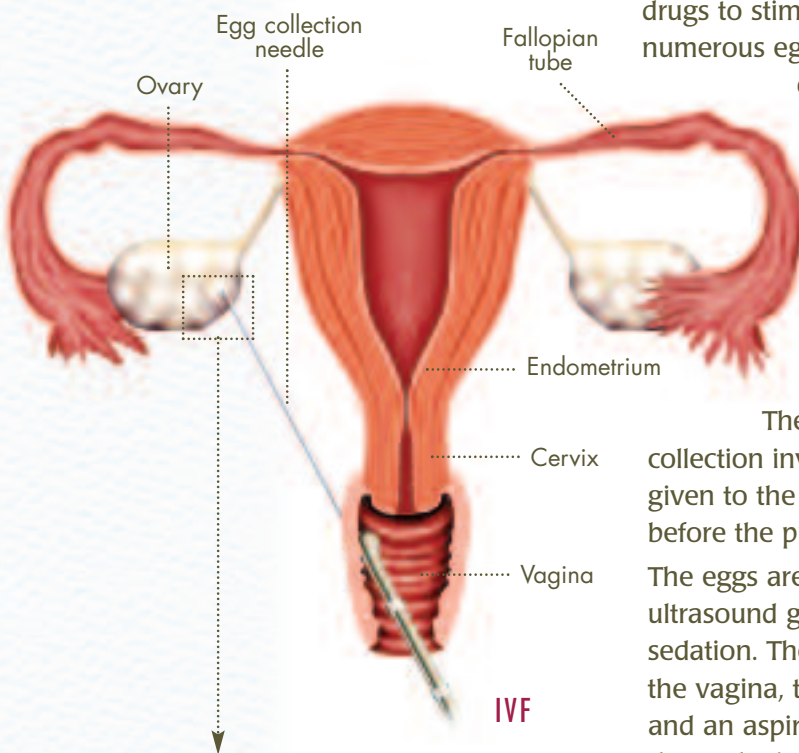
## IN-VITRO FERTILIZATION (IVF)

In-vitro Fertilization is defined as laboratory fertilization of eggs. This treatment bypasses the fallopian tubes and is the most effective therapy for patients with blocked, damaged, or nonexistent tubes. In IVF treatment, the woman is given fertility

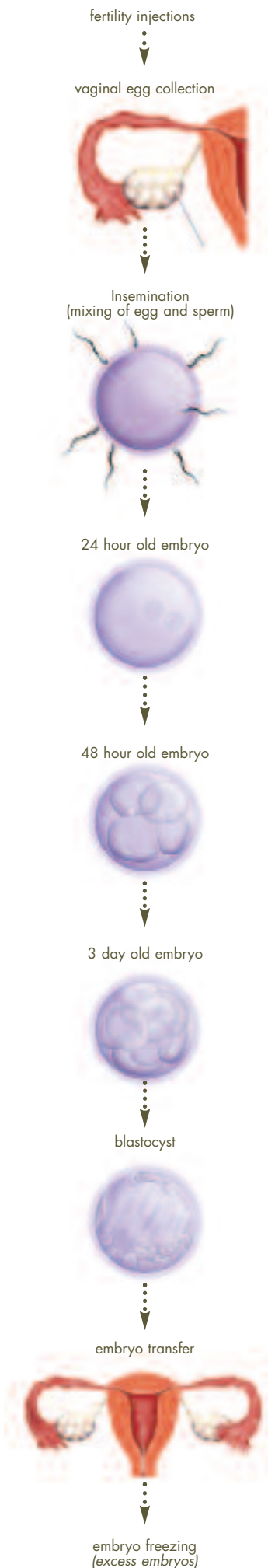
drugs to stimulate her ovaries to produce numerous eggs. Because each follicle, or sac of fluid, contains one egg, the chance of pregnancy is increased if multiple eggs can be obtained and fertilized. The number and size of the developing follicles in the ovaries is measured with ultrasound.

The final preparation for egg collection involves a hormonal injection given to the woman 35 to 36 hours before the procedure.

The eggs are collected vaginally using ultrasound guidance under intravenous sedation. The probe is introduced into the vagina, the ovaries are visualized, and an aspiration needle attached to the probe is passed through the top of the vagina into the follicles. The fluid within the follicles is aspirated and then examined in our laboratory for the presence of eggs. In rare situations when the scan indicates that the ovaries are inaccessible, the eggs are collected laparoscopically. Even with the benefits of ultrasound it is often difficult to predict the number of eggs available.



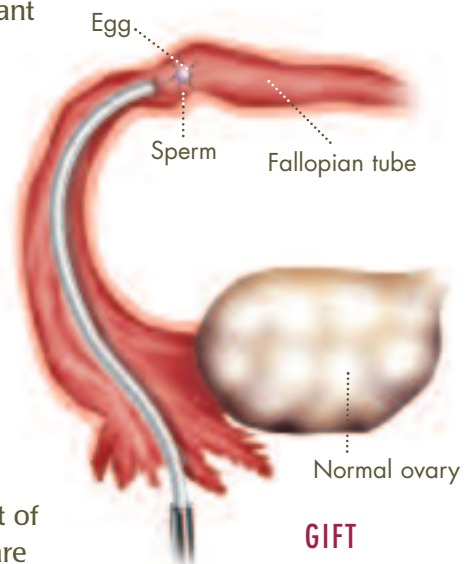
EGG ASPIRATION



More or fewer eggs may be collected than anticipated. In rare cases when no eggs are collected, a follow-up appointment is made with the doctor to discuss treatment alternatives.

After the eggs are collected they are incubated for a short time. The sperm is then added to the eggs and incubated for 24 to 48 hours. If the sperm is normal, fertilization usually takes place. The fertilized eggs, or embryos, are returned to the uterus two to five days after egg collection. This process is known as embryo transfer.

The embryo transfer procedure is one of the most important events in IVF. It is generally a painless procedure similar to a pap smear and takes about 15 minutes. An abdominal or vaginal scan is generally performed to confirm the correct position of the transfer catheter within the uterine cavity prior to transfer. Occasionally, the woman will experience menstrual-like pain during the procedure, but this is generally short-lived. We encourage partners to be present for the embryo transfer. It is important for you to remember that several, or even none, of the eggs may become fertilized. In these cases, we will discuss other treatment options with you.



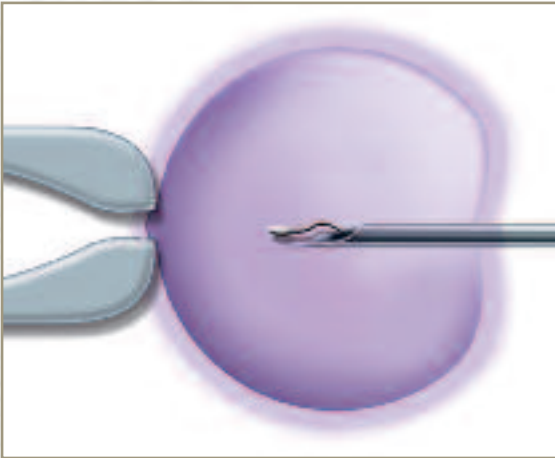
### GAMETE INTRAFALLOPIAN TRANSFER (GIFT)

The GIFT procedure is quite similar to IVF up to the point of egg collection. The ovaries are stimulated with fertility drugs to produce an increased number of eggs with ultrasound monitoring of their development. The retrieved eggs are examined and then two or three mature eggs are mixed with the prepared sperm. The eggs are then transferred into the woman's fallopian tubes through a tiny catheter. In GIFT, fertilization occurs in the natural site – the fallopian tubes. The resulting embryos travel along the fallopian tubes in the normal way to reach the uterus after four to five days. The remaining eggs are inseminated in-vitro and if fertilization occurs, can be frozen for future use.

As the results of IVF become increasingly more successful, it is less common to recommend GIFT as a first-line treatment. We may suggest this technique in special circumstances, such as repeated failure with IVF, unexplained infertility, minimal endometriosis without pelvic damage, or as an incidental procedure at the time of diagnostic laparoscopy.

## ZYGOTE INTRAFALLOPIAN TRANSFER (ZIFT) AND TUBAL EMBRYO TRANSFER (TET)

ZIFT involves the transfer of zygotes, one-day old embryos, into the fallopian tubes. In TET, more mature embryos are transferred. Both treatments are laparoscopic procedures.



**SPERM INJECTION**

## INTRACYTOPLASMIC SPERM INJECTION (ICSI)

ICSI has revolutionized the treatment of male infertility, offering assistance to couples that previously had to rely on the use of donor sperm. ICSI enables up to 95% of couples to reach embryo transfer. It is important to remember that while ICSI is an effective technique in aiding fertilization, it does not guarantee it. Until recently, the limiting factor in treating male infertility was the difficulty in isolating

sufficient numbers of active sperm to mix with the eggs in the laboratory. With ICSI, very few sperm are required. Additionally, the ability of the sperm to penetrate the egg is not an issue since penetration is bypassed.

In ICSI, a high-powered microscope is used to enable the embryologist to perform precise surgical manipulations on the eggs and sperm. A tiny glass instrument called a micropipette is used to hold the eggs in place. The sperm is injected via a microneedle through the outer layers of the egg, past the shell of the egg (zona pellucida) and into the main body of the egg (cytoplasm).

Men with the following abnormalities in their semen are suitable for ICSI:

- Extremely low numbers of active sperm
- All of the sperm in the sample have an abnormal shape
- None of the sperm in the sample are moving.

ICSI cannot be done if the testes do not produce sperm. These cases are very rare.

### **Are there risks of conceiving an abnormal baby with ICSI?**

During ICSI, the microneedle may pierce the egg and cause damage. Because the damage is evident during or immediately after the procedure, the egg is not transferred, so the possibility of an abnormality is avoided. A link exists between very severe male infertility and the gene mutation that causes cystic fibrosis.



**MICROMANIPULATION**



We recommend that patients with an extremely low sperm count be tested for this mutation and for genetic microdeletions.

A genetic link exists for some forms of severe male infertility, however, and it is possible for male children to inherit sub-fertility from their fathers. Consequently, these sons may also require infertility treatment.

**SURGICAL SPERM RETRIEVAL**

Surgical sperm retrieval may be a treatment option for men with:

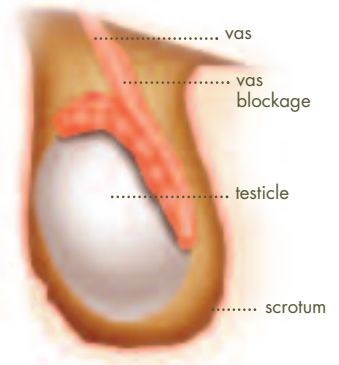
- An obstruction due to injury or infection that prevents sperm release
- Congenital absence of the vas
- Vasectomy
- Non-obstructive azoospermia.

In the first three cases, sperm are produced by the testes but are unable to be ejaculated because of blockage, or absence of, the vas. The man can still ejaculate seminal fluid but this fluid will not contain sperm. It is possible to collect sperm directly from the epididymis.

Occasionally it is possible to repair the blockage surgically.

In the case of non-obstructive azoospermia, very small amounts of sperm may be produced that can be collected directly from the testes. This is done by randomly performing multiple testicular biopsies.

These procedures are usually timed to coincide with the female’s egg collection, and the sperm is then injected into the eggs using ICSI. If enough sperm is retrieved it is possible to freeze small amounts for later use.



**VAS BLOCKAGE**

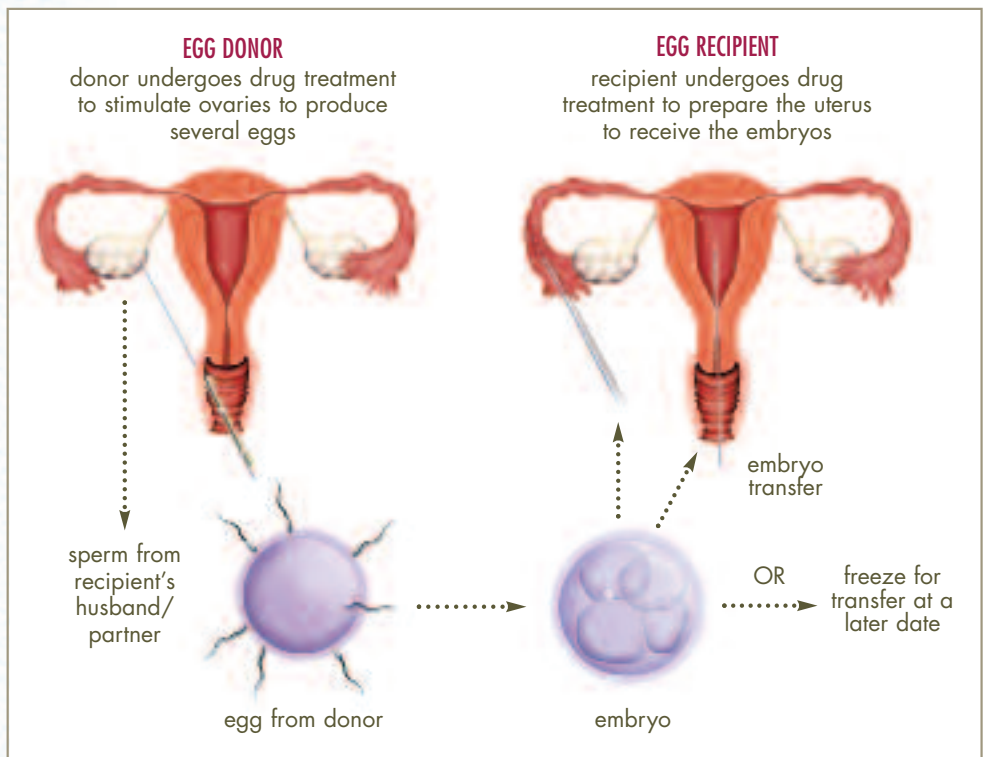
**ASSISTED HATCHING**

Before implantation the embryo must hatch from its shell to attach to the womb. In some cases the shell is unusually hard, reducing the odds of implantation. Assisted Hatching is a procedure in which the outer layer of the embryo is either thinned or opened to facilitate hatching. It is generally recommended for women above the age of 35 and for women who experienced unsuccessful IVF.

While in some cases Assisted Hatching may enhance the pregnancy rate, it is important to realize that some embryos can be damaged as a result of these interventions.



Hatched 8 cell (day 3) human embryo (scanned electron microscopy)



## OVUM (EGG) DONATION

Egg Donation is an option for women with inactive ovaries including:

- Those with primary ovarian failure
- Those suffering from premature menopause (before the age of 40)
- Those with ovarian damage following surgery, radiation or chemotherapy.

Egg Donation is also an option for women with active ovaries including:

- Those who carry an inheritable genetic disorder such as hemophilia
- Those who repeatedly fail to respond to Ovarian Stimulation in an IVF program
- Those whose apparently normal eggs repeatedly fail to fertilize in an IVF program, or whose embryos repeatedly fail to implant
- Those who have a history of recurrent miscarriage.

The goal of Egg Donation is to synchronize the recipient's menstrual cycle with that of the donor, facilitating the most successful outcome. To accomplish this, the recipient is placed on hormone replacement therapy (HRT), which allows us to manipulate her cycle as required.

Donated eggs from volunteers are fertilized with sperm from the recipient's partner. Following fertilization, the embryos are transferred into the uterus or fallopian tubes of the recipient.

The demand for Egg Donation treatment is on the rise and most fertility centers have a waiting list. Because today's technology does not allow unfertilized eggs to be easily frozen, the supply of eggs is limited. Couples and donors that undergo Egg Donation require extensive counseling, particularly in cases where the donor is known to the recipients.

We try to ensure that donors and recipients share similar physical characteristics such as skin, eye, and hair color. Donors should be under the age of 33 and preferably completed their own family. Our donors are carefully screened for HIV, Hepatitis B and C, cystic fibrosis, syphilis, chlamydia, and gonorrhea. The donor undergoes a similar stimulation protocol as described in an IVF cycle, with egg collection usually performed vaginally.

## EMBRYO FREEZING AND REPLACEMENT OF FROZEN EMBRYOS

Following embryo transfer, surplus embryos can be frozen. The advantage of freezing embryos is that they can be replaced in a future cycle without the woman having to repeat drug treatment and surgery. We recommend embryo freezing if two or more embryos of good quality are available. The final decision, however, remains with the couple concerned. Frozen embryo transfer has been practiced since 1987 and there appears to be no increased incidence of fetal abnormality in babies born following this procedure. About 70% of all frozen embryos survive the thawing process. Although some couples may have all of their embryos survive in good condition, others may not have any that survive. Embryos are frozen in batches of two or three and are thawed as a group, not individually.

Replacement of frozen embryos is relatively simple. The woman's natural cycle is monitored using an ultrasound scan and ovulation predictor kits to time ovulation. Following ovulation, the embryos are thawed and transferred back to the uterus. If the woman's cycle is irregular we may recommend HRT, giving us control over the time of transfer.

At the Assisted Fertility Program, embryos can be frozen for up to one year, at which time the embryos may be:

- Donated to another couple
- Thawed in culture and allowed to degenerate
- Transferred to a long-term storage facility

## EGG FREEZING

Egg freezing technology is no longer experimental and vitrification allows us to save unfertilized eggs, for example in women going through cancer treatment.

## SEMEN FREEZING

Semen Freezing is useful for men who find it difficult to ejaculate on demand, resulting in an inability to produce a sample on the day of egg collection. By freezing semen prior to treatment, some of the stress associated with producing a sample is alleviated. Semen quality may be reduced after freezing, however, so a fresh sample is preferred on the day of egg collection.

## CRYOSTORAGE

The Assisted Fertility Program works in close coordination with Reprotech for long-term storage of sperm, eggs, and embryos. Cryobanking is particularly important for patients who want to preserve their fertility prior to cancer treatment.

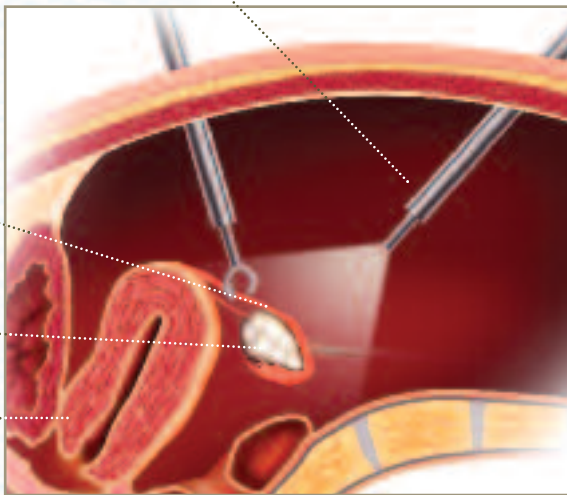


## ENDOSCOPIC SURGERY

At the Assisted Fertility Program, we perform endoscopic or “keyhole” surgery for those women who require it. Hysteroscopy is used primarily to inspect the condition of the uterus from within. It can also be used to perform surgical procedures such as the removal of fibroids, polyps or adhesion, or to correct congenital uterine abnormalities. Hysteroscopy uses a telescope that is passed through the vagina and cervix into the uterine cavity.

Laparoscopy is used to assess the condition of the female pelvis and to diagnose the presence or absence of adhesion, endometriosis, or other pelvic abnormalities. It involves an inspection of the pelvic organs by a telescope passed through a tiny incision at the navel. A separate small incision at the level of the pubic hair is used to introduce a probe to manipulate the pelvic organs. Laparoscopic surgery, which is minimally invasive and leaves only a small scar, can treat any of these conditions.

Laparoscope



## LAPAROSCOPIC SURGERY

We also offer:

- Laparoscopic surgery for tubal infertility
- Laparoscopic removal of fibroids
- Laparoscopic ovarian diathermy for the treatment of Polycystic Ovarian Disease (PCOD)
- Laparoscopic treatment of endometriosis
- Hysteroscopic removal of uterine fibroids and adhesion
- Laparoscopic removal of ovarian cysts.

Your OB/Gyn may also perform these procedures.

## FACTORS AFFECTING OUTCOME OF TREATMENT

### The Age of the Female Partner

Whether a woman conceives naturally or by assisted reproduction technologies, her chances of achieving a pregnancy decrease with age. By comparing pregnancy success rates between IVF patients using their own eggs to patients of the same age using donor eggs, it was discovered that the age of the eggs used was the determining factor in achieving pregnancy. For example, a 40-year-old woman using the eggs of a 25-year-old donor has the same chance of conceiving as that of a 25-year-old woman using her own eggs. It is recognized that the chances of miscarriage increase with a woman’s age, probably due to the age of the egg. Women using younger donor eggs have a reduced risk of miscarriage and a better chance of delivering a healthy baby.



## PREIMPLANTATION GENETIC SCREENING

Preimplantation Genetic Screening (PGS) service is provided at The Assisted Fertility Program. PGS is a specialized genetic test used during in vitro fertilization to evaluate one cell of an embryo, called a blastomere, for aneuploidy (abnormal chromosome number). Each embryo from an IVF cycle is tested separately. Embryos with normal test results can be selected for transfer to the mother's uterus.

The clinical benefits of PGS are an active area of research.

Aneuploidy can occur in any embryo from any couple just by chance, although some couples are at higher risk. A number of studies have demonstrated that PGS may be particularly beneficial for couples meeting any of the following criteria: mother over 35 years of age, recurrent miscarriages, and previously failed IVF cycles.

### Number of Eggs/Embryos Transferred

#### ASRM recommended limits on number of Embryos to transfer:

2-3 Day Old Embryos	age <35	age 35-37	age 38-40	age >40
Favorable*	1 or 2	2	3	5
Unfavorable	2	3	4	5
5-6 Day Old Embryos				
Favorable*	1	2	2	3
Unfavorable	2	2	3	3

\*Favorable: 1st cycle of IVF (or previous cycle of IVF successful), good quality embryos, and excess embryos that will be cryopreserved.



## DRUGS USED IN INFERTILITY TREATMENT

Various drug regimens are used to enhance infertility treatment. Because each woman is unique, we base the medications on her own individual requirements. Commonly used pharmaceuticals include:

- LH-RH agonist/antagonist
- Gonadotropins – fertility injections
- Human Chorionic Gonadotropin (HCG) – egg maturation injections
- Clomiphene Citrate – tablets.

The approach in using these drugs is to control the hormones produced by the pituitary gland using the LH-RH agonist/antagonist and to stimulate egg production using fertility injections. Injections can be administered intramuscularly (in the muscle) or subcutaneously (under the skin), the most common method. The majority of women can easily self-administer these injections. When the egg-containing follicles reach the appropriate size, the HCG injection induces the egg's final maturation.



## COMPLICATIONS OF ASSISTED FERTILITY TREATMENT

As with many medical procedures, assisted fertility carries some risk of complications. We make every attempt to minimize that possibility by identifying those individual women most at risk and by monitoring their treatment cycle even more closely. The most common complications of assisted fertility treatment are:

### • **Ovarian Hyperstimulation Syndrome (OHSS)**

Occasionally a woman's ovaries over-respond to fertility injections and produce too many eggs (follicles). If this occurs and treatment continues, there is a risk of developing OHSS, a complication in approximately five percent of women who undergo fertility treatment. OHSS is caused by the ovaries' hypersensitivity to fertility drugs and is more frequently associated with women who suffer from polycystic ovaries. The symptoms of OHSS include lower abdominal pain and swelling of the abdomen caused by enlargement of the ovaries and the collection of fluid in the abdomen. Women at risk of developing OHSS are advised to cease fertility injections while continuing with the LH-RH agonist/antagonist. We monitor the blood level of estrogen until it drops to an appropriate level, then egg collection is arranged. In rare occasions, we may recommend that egg collection be cancelled. In some cases, we may decide to proceed with the egg collection and freeze all available embryos for future use.

Severe OHSS occurs in approximately one percent of women undergoing ovulation induction and is characterized by nausea, vomiting, abdominal pain and distension. The distension may cause breathlessness and weakness and hospitalization may be needed to relieve the symptoms. The majority of women who suffer from severe OHSS, however, are pregnant, and those who are not will recover before their next menstrual cycle.

### • **Multiple Pregnancies**

Assisted reproductive techniques bring an increased incidence of multiple pregnancies. Problems are more commonly seen in triplet or higher-order multiple pregnancies, but can also occur with twin pregnancies. Because of the greater chance of pre-term labor and delivery, there is an increased risk of the babies being born before they are mature enough to survive, and a greater risk of complications associated with premature birth.

If a woman conceives a multiple pregnancy, careful anti-natal management is advised. Some women may wish to consider selective embryo reduction.



## CONFIDENTIALITY

The Assisted Fertility Program stringently protects patient confidentiality. Couples will be asked to sign a consent form if they wish information to be sent to their personal physicians or referring consultants.

As a licensed fertility center, we consider the welfare of any child born as a result of treatment, as well as that of existing children who may be affected by the birth. We are obliged to contact your family physician or gynecologist to request any information that he/she feels may be relevant. If you do not wish us to contact your family physician or gynecologist, we hope that you will feel comfortable sharing any relevant information with us to help us ensure the welfare of your future child.

## ABANDONED TREATMENT CYCLES

Unfortunately, not all women respond to the fertility drugs. If after seven days of injections little or no follicular development is seen on the ultrasound, we may abandon treatment and arrange another treatment cycle at a later date, perhaps with a higher dose of fertility injections.

## CONSENT FORMS

Once a treatment schedule has been decided upon, you will be asked to sign the relevant consent forms. These are complex documents and we recommend that you read them carefully before signing them at the start of the treatment cycle. If there is anything in the consent forms that you do not understand or disagree with, please discuss this with a relevant member of staff. Signing the consent forms does not commit you to anything, and you may subsequently change your mind. We normally ask you to keep one copy and a second copy is filed in your records.

## REVIEW CONSULTATIONS



It is important to remember that not all treatments are successful. Following an unsuccessful treatment, we encourage you to schedule a follow-up consultation with us so that we may help you decide whether or not to pursue further treatment.

## ACCOMMODATIONS

Several area hotels offer reduced rates for our patients, including several that are within walking distance of the Center.

## HOURS

The Assisted Fertility Program's hours are Monday through Friday, 8:30 a.m. to 5:00 p.m. For couples undergoing treatment, a 24-hour emergency contact number can be obtained by calling (904)398-1473 or 1(800)777-IVFI (4831).



## FEES AND PAYMENT

Couples having fertility treatment are asked to settle their account at the beginning of the treatment cycle. If the egg collection must be cancelled for any reason, an appropriate refund will be made.

Private medical insurance companies do not generally cover assisted fertility treatments, but may cover some consultation testing or operative procedures. We can provide you with the names of several lending institutions that may be of service.



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Lewis Gale Hospital  
1900 Electric Road  
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## GLOSSARY

**Andrologist** A physician who specializes in male infertility

**Embryo** A fertilized egg

**Epididymis** The male's tube where sperm are stored

**Estrogen** The female sex hormone secreted by the developing follicle

**Fallopian tubes** The tubes that join the uterus to the ovaries

**Fibroids** A benign (non-malignant) tumor of the uterine wall

**Follicle** The fluid sac in which the egg grows before ovulation

**FSH** The follicle stimulating hormone which is responsible for growing and maturing the egg

**Gametes** Reproductive cells, either female eggs or male sperm

**Hypothalamus** The area of the brain responsible for the control of the pituitary gland

**Hysteroscopy** Inspection of the uterus using a small telescope

**Laparoscopy** Inspection of the pelvis using a small telescope

**LH** A hormone that triggers ovulation

**LH-RH Analog** A drug that stimulates the release of FSH from the pituitary gland

**Ovary** The female reproduction organ containing the eggs

**Ovulation** The release of the egg from the ovary

**Peritoneal cavity** The space that contains internal pelvic and abdominal organs

**PGS** Preimplantation Genetic Screening is a specialized genetic test used to select normal embryos to be transferred to the uterus

**Pituitary gland** The gland that secretes the hormones controlling ovulation

**Progesterone** A female sex hormone

**Pronuclei** Visible signs of egg fertilization containing the genetic material from the egg and sperm

**Testes** The male reproductive organs that produce sperm

**Vas deferens** The tubes from each testicle that transport the sperm





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