

ART (*Artificial Reproductive Technology*)

	Is It For You?	Description of Procedure	Length of Treatment	Success Rate of Pregnancy	Pros	Cons
IUI Intrauterine Insemination; (a.k.a artificial insemination)	<ul style="list-style-type: none"> Couples with unexplained fertility problems Woman with a sperm allergy Presence of low sperm count or poor sperm motility 	<ul style="list-style-type: none"> Injection of sperm (after washing) is injected directly into the uterus via a catheter Usually accompanied by ovarian stimulating drugs i.e.) gonadotropins (FSH) to yield better quality and higher number of follicles. Pregnancy test can be done 2 weeks after insemination <p><u>Side Effects:</u> -cramping after sperm is injected into the uterus -fertility drugs will increase risk of having multiples and developing ovarian hyperstimulation syndrome (OHSS)</p>	The procedure itself take about an hour. Women usually undergo 3 to 6 cycles of treatment	5% to 20% with each cycle	<ul style="list-style-type: none"> Less invasive Less expensive than other ART treatments Allows for fertilization to occur naturally inside your body 	<ul style="list-style-type: none"> Male partner needs to be able to quickly produce sperm sample because the timing of insemination is crucial Both partners need to be available and ready at the exact time of ovulation

<p>IVF (Invitro Fertilization)</p>	<ul style="list-style-type: none"> • If you have ovulation problems • Blocked fallopian tubes • Male partner has low sperm count • If other ART treatments have been unsuccessful 	<ul style="list-style-type: none"> • Ovarian Stimluation via injections of various forms of the hormone FSH to yield greater number of follicles to ovulate • Oocyte retrieval: once eggs are mature an anesthetic is given to remove the eggs from the ovaries. The eggs are then combined with the sperm in a dish in a lab. • Embryo Transfer: 2 to 5 days later, 2 to 4 of the embryos are transferred into the uterus via a catheter through the cervix • Post Transfer: 2 weeks after the embryo transfer, a pregnancy test can be done. <p><u>Side Effects:</u> -fertility drugs will increase risk of having multiples -increase risk of developing OHSS</p>	<p>4 to 6 weeks to complete one cycle of IVF</p>	<p>On average 35% chance of pregnancy.</p> <p>28% chance of delivering a baby with each cycle of treatment</p>	<ul style="list-style-type: none"> • Unlike other ART procedures, IVF has been used since 1978 and therefore extensive research has been done on this method and no medical problems have been linked to it. • Fertility drugs do not increase woman's risk of ovarian cancer as previously thought. 	<ul style="list-style-type: none"> • Expensive • About 30% chance of having multiple pregnancy because more than 1 embryo is placed in the uterus. • Increased risk of ectopic pregnancy • Risk of developing OHSS
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<p>ICSI (Intracytoplasmic Sperm Injection)</p>	<ul style="list-style-type: none"> If you have: <ul style="list-style-type: none"> - very low sperm count -low sperm motility -damaged or missing vas deferens -irreversible vasectomy 	<ul style="list-style-type: none"> The woman will be administered fertility drugs to stimulate ovulation. Once the eggs mature, the eggs are removed from the ovaries. The male partner needs to provide a sperm sample. However, if there isn't enough sperm in the ejaculate, it is possible to remove some sperm from the passages that carry the sperm or from the testicle via a needle. The sperm can be collected in advance and frozen until the eggs are ready for fertilization Next, the sperm is injected, one at a time, directly into each of the eggs. Embryos are formed after 2 to 5 days and 4 embryos are placed in the uterus using a catheter. Pregnancy test can be done 2 weeks after the embryo transfer 	<p>4 to 6 weeks to complete one cycle of ICSI</p>	<p>34% chance of pregnancy. 28% chance of having a baby.</p>	<ul style="list-style-type: none"> Unlike other ART procedures, IVF has been used since 1978 and therefore extensive research has been done on this method and no medical problems have been linked to it. Fertility drugs do not increase woman's risk of ovarian cancer as previously thought. 	<p>This is a great treatment option for couples with male-factor infertility.</p>
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<p>GIFT (Gamete Intrafallopian Transfer)</p>	<ul style="list-style-type: none"> • If the fallopian tubes are open and other fertility treatments have been unsuccessful • If you have ovulation or cervical problems • If the male partner has low sperm count 	<ul style="list-style-type: none"> • This procedure is similar to IVF but the eggs and sperm is inserted into the fallopian tubes through a small incision in the abdomen via a laparoscope. • Allows fertilization to occur naturally inside the fallopian tubes 	<p>4 to 6 weeks to complete one cycle</p>	<p>On average 21% chance of delivering a baby with each cycle of treatment</p>	<ul style="list-style-type: none"> • Requires minor surgery to harvest eggs and to transplant them. 	<ul style="list-style-type: none"> • Allows for fertilization to occur in the fallopian tube rather than in the lab – if couples have a preference for a natural conception.
<p>ZIFT (Zygote Intrafallopian Transfer)</p>	<ul style="list-style-type: none"> • If fallopian tubes are open and other fertility treatments have been unsuccessful • If you have ovulation or cervical problems • If the male partner has low sperm count 	<ul style="list-style-type: none"> • This procedure is similar to GIFT but the eggs are fertilized in the lab before it is inserted into the fallopian tubes. 	<p>4 to 6 weeks to complete one cycle</p>	<p>On average 26% chance of delivering a baby with each cycle of treatment</p>	<ul style="list-style-type: none"> • Considered the most invasive method of fertility treatments • This method of treatment is not offered by many fertility clinics • Only 1% of couples who turn to ART choose this method of treatment • Requires minor surgery to harvest eggs and to transplant them. 	<ul style="list-style-type: none"> • More assurance than GIFT because doctors will be able confirm fertilization of the egg before it is inserted into the fallopian tubes • Allows developing embryo to travel into the uterus on its own

With most artificial reproductive technology (ART) procedures, there is an increased risk of Ovarion Hyperstimulation Syndrome and if the woman has a history of difficulty getting pregnant, there is an increased risk of ectopic pregnancy in which the embryo implants in the fallopian tubes or the abdominal cavity due to abnormal tubal function, instead of the uterus. With invitro fertilization (IVF), because more than one embryo is placed in the uterus, there is approximately 30% chance of multiple pregnancy which may sound great, but unfortunately this increases the risk of miscarriage and other complications. Therefore, some doctors may even advise aborting a fetus if you're at risk of losing them all. Current research is exploring ways to prevent multiple fetuses.

Acupuncture and Traditional Chinese medicine is commonly used in conjunction to ART procedures. Treatment protocols are determined and specific to each patient and on their cycles to:

- Prepare both partners for the ART procedure (i.e. increase sperm count, promote healthy sperm morphology and motility; in women to increase blood flow to the uterus to promote healthy uterine lining, egg quality and ovulation.)
- Assist in promoting ovulation and to increase uterine blood flow
- With IVF, acupuncture treatment prior to and after embryo transfer can help increase the chances of implantation and prevent miscarriage