

THIS WORLD IVF DAY, HEGDE FERTILITY CELEBRATES CONCEPTION: A MIRACLE, A SCIENCE!



The journey towards parenthood is exciting and magical. But when life throws you curveballs, outstanding treatments are needed to help reach your destination. At this delicate stage, patients find that they require a substantial investment of time, emotion and resources in order to achieve the desired results.

Infertility is a burning issue that many couples of today's society are facing. Sometimes this battle if delayed, can end up being a long and unfruitful dream with physical, emotional and financial constraints and mounting familial and societal pressures in many a case.

Infertility affects an estimated 15 percent of couples globally and is even more pronounced in developing countries like India.

The most significant breakthrough in infertility treatment was the birth of Louise Brown on July 25th 1978, in England. She was the first IVF baby born globally after years of efforts. July 25th is celebrated as the World IVF Day every year to mark the most incredible innovation in reproductive medicine this day.

Over the past 43 years, more than 15 million children have been born through various 'Assisted Reproductive Techniques' (ART) including in-vitro-fertilization (IVF) and several other advanced techniques that have evolved since then.

What is IVF?

An understanding of natural conception is essential to understand IVF.

Usually, a woman will produce one egg (oocyte) each month. The egg is released from the ovary at the time of ovulation and transported to the fallopian tube. Usually, it is in the fallopian tube that it will encounter sperm and be fertilized. The fertilized egg develops into an embryo that will travel to the uterus (womb), where it attaches and grows.

In IVF, the ovary is stimulated to develop multiple eggs. Then the eggs are collected directly from the ovary before ovulation and are fertilized with sperm in the laboratory. The fertilized eggs are incubated for a period of 3 to 5 days. Then 1-2 embryos are selected from the resulting embryos, which are transferred into the uterus, passing through a small canal called the cervix, which can be accessed through the vagina.

Why is IVF done?

IVF can be a treatment for infertility or genetic problems. Ideally, IVF is a procedure to treat infertility when less-invasive treatment options like intrauterine insemination (IUI), a procedure in which sperm are placed directly in the woman's uterus, near the time of ovulation have

failed. Sometimes, IVF is a primary treatment for infertility in women over age 40 or in any of the following conditions:

- Fallopian tube damage or blockage
- Diminished ovarian reserve
- PCOS - when other strategies have failed
- Endometriosis / Adenomyosis
- Previous tubal sterilization or removal
- Impaired sperm production or function
- Unexplained infertility
- Ovarian failure patients can opt for the IVF process using donor eggs
- IVF FOR SURROGACY - Women who don't have a functional uterus or for whom pregnancy poses a serious health risk, IVF can be an option, by using another person to carry the pregnancy (surrogacy). In this case, the woman's eggs are fertilized with sperm, but the resulting embryos are placed in the gestational carrier's uterus.

● A GENETIC DISORDER - If any partner is at risk of passing on a genetic disorder, they can opt for preimplantation genetic testing (PGT) - a procedure that involves IVF. After the eggs are harvested and fertilized, they're screened for genetic problems. Embryos that don't contain identified issues can be transferred to the uterus.

● FERTILITY PRESERVATION FOR CANCER OR OTHER HEALTH CONDITIONS - Cancer treatment can harm fertility. Women can have eggs harvested from their ovaries and frozen in an unfertilized state. Alternately, the eggs can be fertilized and frozen as embryos for future use.

What are the steps involved in IVF?

- (1) Evaluating the couple
- (2) Planning IVF strategy
- (3) Selection of the best stimulation protocol
- (4) Stimulating the ovaries with fertility drugs for approximately 10 days to develop multiple mature eggs
- (5) Monitoring response to stimulation by serial scans
- (6) Harvesting the eggs under short anaesthesia by needle aspiration via the vaginal route under scan guidance (a non-invasive daycare procedure)
- (7) Fertilization with the partner's sperms in the laboratory
- (8) Embryo cultured for 3 - 5 days
- (9) Selection of the best 1-2 embryos for transfer into the uterus
- (10) Supportive medicines for 15 days
- (11) Pregnancy test after 15 days

What is ICSI?

In some cases, especially those of male infertility, the usual mixing of egg and sperm may not result in a fertilized egg. A technique termed ICSI (Intracytoplasmic Sperm Injection), in which a single sperm is injected directly inside the egg with a microscopic needle, may offer a solution to those with severe male factor infertility.

Why is embryo selection important?

On "day 3" (three days following the retrieval of the eggs), the embryologist will examine the embryos and check the degree of development and quality. This information will help determine whether to transfer the embryos one the same day or wait two additional days until the embryos reach the blastocyst stage.

What is a blastocyst?

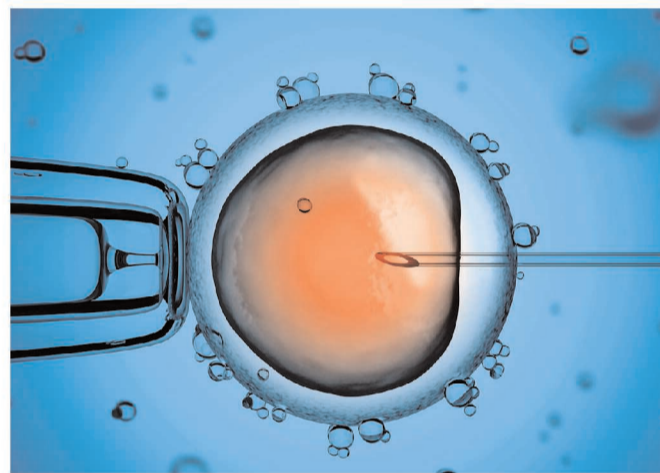
Blastocysts are embryos that have developed for 5 to 6 days after fertilization. A healthy blastocyst is ready to hatch from its outer shell by the end of the 6th day and implant into the endometrial lining within 24 hours. Blastocysts are a viable option whenever a good number and quality of embryos exist. Since blastocysts have a higher implantation potential, fewer of them are transferred, generally one. Transferring single embryo translates into a lower risk for twin and multiple pregnancies and its associated complications.

When is cryopreservation (freezing) of embryos advised?

Cryopreservation is a technique in which the embryos/eggs/sperms are frozen for prolonged periods. This is useful for couples undergoing IVF, who have surplus embryos left after embryo transfer, or couples who want to freeze their embryos and plan pregnancy later due to social, medical, or personal reasons.

In some situations, where the conditions for implantation to uterus are not ideal, the embryos may be frozen before an embryo transfer takes place. These frozen embryos are then transferred in a subsequent cycle whenever the ideal situation is created.

The embryologist evaluates each patient individually and determines which embryos are suitable for cryopreservation and at what stage to freeze them. Embryos that are suitable for freezing are exposed to a particular freezing medium called a cryoprotectant. They are placed in small straws, which are then cooled to subzero temperatures. These straws are stored in liquid nitrogen cans until they are thawed (warmed) at a later date.



When thawed embryos are transferred into the uterus, pregnancy rates are the same as that of a fresh embryo transfer cycle.

What is the success rate of IVF?

Even in a perfectly normal couple, the chances of pregnancy per cycle naturally are 10-15%. IVF is the most successful of all available fertility treatment procedures. The success rate varies depending on the age of the couple, the egg reserve, the sperm quality and other coexisting factors, but on an average it is between 30 - 50% per cycle. Techniques like embryo freezing and PGS can improve the cumulative pregnancy rates to 60 - 70%. Hence, most couples conceive within 1 - 3 cycles of IVF.

Is IVF Expensive?

No. The cost of an IVF cycle in India is one-fifth the cost in USA, where it is approximately 10 lakhs. Hegde Fertility has many patients coming to their centre from all over the world today for IVF treatment, as the technology and success rates are comparable to international statistics for a lesser cost. This is possible mainly because of the team of well qualified doctors and the quality of the embryology lab.

Although there is a significant rise in the number of patients opting for infertility treatment in India, the numbers are still abysmally low when compared to the couples actually requiring medical intervention. This is primarily due to lack of awareness regarding infertility, its causes and treatment options.

Not every couple needs complicated and advanced ART treatment; sometimes simple treatments like IUI suffice. At Hegde fertility, each couple is evaluated individually

and the management plan is formulated accordingly. Hegde Fertility attributes its success to tailoring each case independently with a systematic and structured approach using world standard protocols. The whole process begins with a thorough analysis of every couple before embarking upon the eventful journey together. Hegde Fertility has what it takes to provide any couple the right guidance to achieve full-term pregnancy through a team of highly qualified doctors along with the best in technology and infrastructure.

Scientific advances have made it possible for specialists to treat millions of infertile couples - provided they seek medical assistance in time. ART is a rapidly evolving field, and newer techniques offer deeper insights into the cause of infertility and provide more effective treatment. The latest advancements in ART come as a boon to several childless couples while also indicating the need for increasing awareness among people regarding these advancements, to improve their chances to successfully take home a healthy baby!



For More details, contact:
 ● Hitec City ● Malkpet ● Miyapur ● Suchitra
 Call: 8880 747474
 know more: www.hegdefertility.com

INFERTILITY DEPARTMENT

DR. VANDANA HEGDE
Clinical Director

DR. DURGA VYTLA
Clinical Head - Miyapur

DR. JASMINE SALKAR
Consultant Reproductive Medicine

DR. SHALINI SINGH
Consultant Reproductive Medicine

DR. ARCHANA A NAGAONKAR
Consultant Reproductive Medicine

DR. LAVANYA BOMMAKANTI
Consultant Reproductive Medicine

DR. SNEHA SHETTY
Consultant Reproductive Medicine

DR. INDRANI MOGLI
Consultant Reproductive Medicine

ANDROLOGY & EMBRYOLOGY DEPARTMENT

DR. AKASH AGARWAL
Scientific Director & Chief Embryologist

GENETICS DEPARTMENT

DR. SURBHI KAPOOR
PhD - Human Genetics

DEPARTMENT OF LAPAROSCOPY

DR. PRASHANT HEGDE
Medical Director



For more queries: email to Kiran.Tsm@timesgroup.com

Disclaimer - The views/contents expressed/presented herein, within this advertorial, health promotional feature, are the sole and exclusive responsibility of individual clients/ their authorized representatives, to which effect, representatives/affiliates liable whatsoever.