

Glossary of Terms

THE INFERTILITY PROCESS AND ASSISTED REPRODUCTIVE TECHNOLOGIES.

American Society for Reproductive Medicine (ASRM)

A professional medical organization of more than 8,000 health care professionals dedicated to reproductive medicine.

Assisted hatching (AH)

A procedure in which the zona pellucida (outer covering) of the embryo is partially opened, usually by application of an acid or laser, to facilitate embryo implantation and pregnancy.

Assisted reproductive technologies (ART)

All treatments which include the handling of eggs and/or embryos. Some examples of ART are in vitro fertilization (IVF), gamete intrafallopian transfer (GIFT), pronuclear stage tubal transfer (PROST), tubal embryo transfer (TET), and zygote intrafallopian transfer (ZIFT).

Biochemical pregnancy

When a woman's pregnancy test is initially positive but becomes negative before a gestational sac is visible on ultrasound.

Blastocyst

An embryo that has formed a fluid-filled cavity and the cells have begun to form the early placenta and embryo, usually 5 days after ovulation or egg retrieval.

Clinical pregnancy

A pregnancy confirmed by an increasing level of hCG and the presence of a gestational sac detected by ultrasound.

Cryopreservation

Freezing at a very low temperature, such as in liquid nitrogen (196°C) to keep embryos, eggs, or sperm viable.

Egg (oocyte)

The female sex cell (ovum) produced by the ovary, which, when fertilized by a male's sperm, produces an embryo.

Egg retrieval

The procedure in which eggs are obtained by inserting a needle into the ovarian follicle and removing the fluid and the egg by suction. Also called oocyte aspiration.

Electroejaculation (EEJ)

Procedure to cause ejaculation of sperm, performed by electrical stimulation of tissue in the region of the prostate.

Embryo

A fertilized egg that has begun cell division.

Embryo culture

Growth of the embryo in a laboratory (culture) dish.

Embryo transfer

Placement of an embryo into the uterus or, in the case of ZIFT and TET, into the fallopian tube.

Epididymis

The duct between testes and vas deferens where sperm are stored and mature.

Estrogen

The female hormone largely responsible for thickening the uterine lining during the first half of the menstrual cycle in preparation for ovulation and possible pregnancy. Estradiol is the main estrogen.

Fallopian tubes

A pair of tubes attached to the uterus, one on each side, where sperm and egg meet in normal conception. Fertilization. The fusion of sperm and egg.

Gamete intrafallopian transfer (GIFT)

The direct transfer of sperm and eggs into the fallopian tube. Fertilization takes place inside the tube.

Gestational carrier

A woman who carries a pregnancy for another couple. The pregnancy is derived from the egg and sperm of the couple. Although she carries the pregnancy to term, she does not have a genetic relationship to the resulting child.

Insemination

Placement of sperm into the uterus or cervix for producing a pregnancy, or adding sperm to eggs in IVF procedures.

Intracytoplasmic sperm injection (ICSI)

A micromanipulation procedure in which a single sperm is injected directly into an egg to attempt fertilization, used with male infertility or couples with prior IVF fertilization failure.

In vitro fertilization (IVF)

A process in which an egg and sperm are combined in a laboratory dish to facilitate fertilization. If fertilized, the resulting embryo is transferred to the uterus.

IVF culture medium

A special fluid into which sperm, eggs, and embryos are placed when outside the human body.

Male-factor infertility

Infertility caused by a problem in the male; for example the inability to ejaculate or insufficient number of sperm.

Microepididymal sperm aspiration (MESA)

Outpatient microsurgical procedure used to collect sperm in men with blockage of the male reproductive ducts such as prior vasectomy or absence of the vas deferens. Used in IVF-ICSI procedures.

Micromanipulation

The IVF laboratory process whereby the egg or embryo is held with special instruments and surgically altered by procedures such as intracytoplasmic sperm injection (ICSI), assisted hatching, or embryo biopsy.

Motile/Motility

Moving or the progression of movement sperm. Also known as swimming.

Oocyte

Medical term for egg, the female gamete. Also called ovum (singular) or ova (plural).

Ovary/Ovaries

The two female sex glands in the pelvis, located one on each side of the uterus. The ovaries produce eggs and hormones including estrogen, progesterone, and androgens.

Ovulation

Release of an egg from the ovary.

Ovulation induction

The administration of hormone medications (ovulation drugs) that stimulate the ovaries to produce multiple eggs. Sometimes called enhanced follicular recruitment or controlled ovarian hyperstimulation.

Penile vibratory stimulation (PVS)

A procedure to cause ejaculation of sperm, performed by vibratory stimulation of the penis.

Percutaneous epididymal sperm aspiration (PESA)

A sperm aspiration procedure in which a needle is inserted into the epididymis (gland that carries sperm from testicle to vas deferens) in order to retrieve sperm for use in an IVF procedure.

Preimplantation genetic testing (PGT)

A test performed in which cells are removed from an embryo. The cells are then screened for genetic abnormalities. May be performed in conjunction with IVF. There are several types of testing that can be performed.

PGT-A

Testing for Aneuploidy, the presence of too many or too few chromosomes in an embryo.

PGT-M

Testing for Monogenic disorders which are single gene changes carried by the biologic mother and/or father, e.g. cystic fibrosis, sickle cell disease).

PGT-SR

Testing for Structural Rearrangements of chromosomes which are chromosomal variations that are carried by the biologic mother and/or father and increase the risk of miscarriage. These rearrangements or translocations are often found in patients with recurrent miscarriage.

Progesterone

A female hormone secreted during the second half of the menstrual cycle. It prepares the lining of the uterus for implantation of a fertilized egg.

Pronuclei

The nuclei of the male and female gametes (sperm and egg) seen in the one-cell embryo (zygote).

Semen

The fluid ejaculated by the male.

Society for Assisted Reproductive Technology (SART)

A society affiliated with the ASRM and comprised of representatives from assisted reproductive technology programs who have demonstrated their ability to perform IVF.

Sperm

The male reproductive cells that fertilize a woman's egg. The sperm head carries genetic material (chromosomes), the midpiece produces energy for movement, and the long, thin tail wiggles to propel the sperm.

Testicular sperm extraction (TESE)

Operative removal of testicular tissue in an attempt to collect living sperm for use in an IVF-ICSI procedure.

Transvaginal ultrasound aspiration

An ultrasound-guided technique for egg retrieval whereby a long, thin needle is passed through the vagina into the ovarian follicle and suction is applied to accomplish retrieval.

Ultrasound

A technology that uses high-frequency sound waves to form an image of internal organs on a monitor screen; used by fertility specialists to monitor the growth of ovarian follicles and to retrieve the eggs from the follicles and evaluate a pregnancy.

Uterus (womb)

The hollow, muscular female reproductive organ in the pelvis in which an embryo implants and grows during pregnancy. The lining of the uterus, called the endometrium, produces the monthly menstrual blood flow when there is no pregnancy.

Vagina

The canal in the female that leads to the cervix, which leads to the uterus.

Vas deferens

The two muscular tubes that carry sperm from the epididymis to the urethra.

Vitrification

An ultra-rapid method of freezing eggs and embryos that may offer certain advantages compared with traditional types of cryopreservation.

Zona pellucida

The egg's outer layer that a sperm must penetrate in order to fertilize the egg.

Zygote

A fertilized egg before cell division (cleavage) begins.

Zygote intrafallopian tube transfer (ZIFT)

An egg is fertilized in the laboratory and the zygote is transferred to the fallopian tube before cell division takes place. Eggs are retrieved and fertilized on one day and the embryo is transferred the following day.