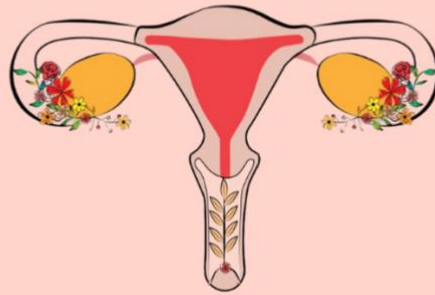


UNFERTILITY



IVF Glossary

*TRIGGER WARNING: SOME OF THESE DEFINITIONS MIGHT BE UPSETTING

ADHESION:

scar tissue occurring in the abdominal cavity, fallopian tubes, or inside the uterus. adhesions can interfere with transport of the egg and/or implantation of the embryo in the uterus.

ANDROLOGIST:

a scientist who specializes in the study of male reproduction and performs laboratory evaluations of male fertility and is usually affiliated with a fertility treatment centre that performs in-vitro fertilization.

ANEUPLOIDY:

refers to a condition in which an abnormal number of chromosomes are found in an embryo or pregnancy. there may be missing or extra chromosomes present.

ANOVULATION:

a condition in which a woman does not release mature eggs on a regular basis. menstrual (vaginal) bleeding may still occur.

ARTIFICIAL INSEMINATION:

a procedure in which sperm are introduced into a woman's uterus through clinical means instead of through sexual intercourse to increase the likelihood that sperm will reach and fertilize an egg. artificial insemination is also called "intrauterine insemination" or IUI.

ASSISTED HATCHING:

an in-vitro (laboratory) procedure in which the zona pellucida (protective outer shell) of an embryo (usually at the eight-cell stage or the blastocyst stage) is perforated by chemical, mechanical, or laser-assisted methods. this can assist with separation of the embryo from its zona pellucida and may increase the chance of embryo implantation during IVF.

ASSISTED REPRODUCTIVE TECHNOLOGY (ART):

medical treatments aimed at helping women, men, and couples with fertility obstacles conceive and give birth to a healthy child. in-vitro fertilization (IVF), intracytoplasmic sperm injection (ICSI), and assisted hatching are examples of fertility treatments used to help begin successful pregnancies.

ASTHENOZOOSPERMIA:

low sperm motility.

AZOOSPERMIA:

the absence of sperm in the seminal fluid, usually caused by a blockage or an impairment of sperm production.

BASAL BODY TEMPERATURE:

the body temperature of a woman, immediately upon awakening, before any activity. when the temperature is recorded daily on a graph, a jump in temperature (about 0.5 °f) may be evidence of ovulation. a drop in temperature may be evidence of imminent menses or miscarriage.

BETA HCG TEST (BHCG):

a blood test, often referred to as “the beta”, to determine if pregnancy took place. it gives a positive reading if human chorionic gonadotropin (HCG) is present.

BLASTOCYST:

an embryo with a fluid-filled blastocoele cavity (usually developing by five or six days after fertilization).

BUSERELIN:

Buserelin is a synthetic hormone drug, used to 'switch off' your ovaries at the start of the IVF procedure (before starting it up again with different drugs).

CANCELLATION:

stopping a cycle of ovarian stimulation following initiation of medication prior to egg retrieval or IUI when there is an inadequate response to the fertility medication.

CERVICAL MUCUS:

secretions produced by the cervix. the thickness of the mucus varies according to the phase of the menstrual cycle. in the days just before ovulation, the mucus becomes thin and watery and is easily penetrable by sperm.

CERVICAL STENOSIS:

a blockage of the cervical canal from a congenital defect or from complications of surgical procedures.

CERVIX:

the lower section and opening of the uterus that protrudes into the vagina. sperm pass through the cervix into the uterus following intercourse. it dilates during labour to allow passage of the new-born baby.

INCOMPETENT CERVIX:

a weakened cervix, which opens up prematurely during pregnancy and can cause the loss of the foetus. a cervical cerclage is a procedure in which a stitch is put around the cervix to prevent its opening prematurely. it is usually removed when the pregnancy is full term.

CHROMOSOME:

the structures in the cell that carry the genetic material (genes); the genetic messengers of inheritance. humans have forty-six chromosomes, twenty-three coming from the egg and twenty-three coming from the sperm.

CHEMICAL PREGNANCY:

The medical term used to describe a very early miscarriage, which usually happens in the 1st couple weeks after you've had your embryo transferred to the womb.

CLINICAL PREGNANCY:

a pregnancy that's been confirmed by 2 things: an ultrasound showing either a heartbeat or gestational sac, and high levels of the pregnancy hormone HCG.

CLOMID:

A fertility drug that stimulates the ovaries

CLOMIPHENE CITRATE:

a fertility drug which causes a woman's body to mature an egg-containing follicle. it comes in tablet form and is usually taken for five days.

CORPUS LUTEUM:

structure on an ovary that is a remnant of a follicle after ovulation. it releases progesterone, a hormone that prepares the uterine lining for embryo implantation. the corpus luteum should persist into the first trimester of pregnancy if a pregnancy does indeed occur.

CRYOPRESERVATION:

a procedure used to preserve and store, by freezing, sperm, eggs, and/or embryos.

D&C (DILATION AND CURETTAGE):

a procedure used to dilate (open) the cervical canal and scrape out the lining and contents of the uterus.

DONOR INSEMINATION (DI):

artificial insemination with donor sperm.

DOWN REGULATION

This term's important when it comes to the process of IVF - as it describes one of the first things that'll happen. Your specialist will 'switch off' your ovaries, so to speak, by using a drug. You might hear this being called 'down regging', and you may also hear the phrase 'down regulation cycle'.

DOXYCYCLINE:

a tetracycline derivative; an antibiotic that inhibits many of the microorganisms associated with infections of the reproductive tract. often used for treating ureaplasma infections. many physicians find routine treatment with this antibiotic more cost-effective than performing multiple cultures on both the man and women in an attempt to identify an infection.

ECTOPIC PREGNANCY:

a pregnancy in which the embryo implants outside the uterine cavity, most often in the fallopian tube. less frequently, it can implant on the ovary or in the abdominal cavity. treatment usually requires surgical intervention and/or methotrexate therapy.

EGG DONOR:

a woman who provides eggs or “ova” to another person who “needs” eggs. the other person can be a male in a male/male relationship or can be another woman with poor quality or quantities of eggs. donated eggs will be fertilized in the laboratory to create embryos, after which the embryo is implanted in the uterus of the infertile woman or a surrogate.

EGG RETRIEVAL (ER):

an attempt to obtain eggs from the ovary under a type of anaesthesia. this is done with a long, thin needle, through the vagina, under ultrasound imaging guidance.

EMBRYO:

your baby in the very early stages of its development – 2 - 8 weeks after fertilisation takes place. Prior to this, the embryo is called a blastocyst, and before that, a zygote.

EMBRYO TRANSFER (ET):

The final stage of IVF treatment, where your embryos are placed back (transferred) into your uterus using a thin tube called a catheter.

EMBRYOLOGISTS:

scientists trained in advanced laboratory techniques who prepare and provide the necessary conditions for the fertilization of eggs. they also facilitate the growth, development, maturation, and preservation of sperm, eggs, and embryos.

ENDOMETRIAL BIOPSY:

a procedure during which a sample of the uterine lining is collected for microscopic analysis. the biopsy results can confirm ovulation and the proper preparation of the endometrium by oestrogen and progesterone stimulation.

ENDOMETRIOSIS:

the presence of endometrial tissue (the uterine lining) growing in areas outside of the uterine cavity. these locations can include the fallopian tubes, ovaries, and the peritoneal cavity. this condition often causes infertility and painful menstruation.

ENDOMETRIUM:

the tissue lining the inside of the uterus. this tissue responds to the cyclic production of ovarian hormones and permits implantation of the placenta during pregnancy. its upper layers are shed with menstruation.

EPIDIDYMIS:

a coiled, tubular organ attached to and lying on the testicle. within this organ, the developing sperm complete their maturation and develop their swimming capabilities. the mature sperm leave the epididymis through a tube called the vas deferens.

FALLOPIAN TUBE:

a pair of tubes that acts as a conduit for eggs to traverse from an ovary to the uterus. natural fertilization normally takes place here as an egg travels through the fallopian tube.

FERTILITY SPECIALIST:

a physician specialising in the practice of fertility.

FERTILIZATION:

the combining of the genetic material carried by sperm and egg to create an embryo. this normally occurs inside the fallopian tube (in vivo) but may also occur after manipulation of sperm and egg in a petri dish (in vitro).

FOETUS:

a term used to refer to a baby during the period of gestation between eight weeks and full term.

FIBROID (MYOMA OR LEIOMYOMA):

a benign tumour of the uterine muscle and its connective tissue.

FOLLICLES:

fluid-filled sacs in the ovary which contain the eggs released at ovulation. each month an egg develops inside the ovary in a fluid-filled pocket called a follicle.

FOLLICLE STIMULATING HORMONE (FSH):

a pituitary gland hormone that stimulates spermatogenesis (in males) and follicular development (in females). in the man, FSH stimulates the cells in the testicles and supports sperm production. in the woman, FSH stimulates the cells in the ovaries to support the growth of the egg-containing ovarian follicle. elevated FSH levels may indicate poor gonadal function or failure in both men and woman.

Just like the AMH levels, your FSH will often be tested during initial infertility tests – as it can determine whether or not egg reserves or sperm count is low, giving you an indicator of how your treatment will progress.

FOLLICULAR PHASE:

the pre-ovulatory portion of a woman's menstrual cycle during which a follicle grows and high levels of oestrogen cause the lining of the uterus to thicken and proliferate. this normally lasts between 12 and 14 days.

FROZEN EMBRYO TRANSFER:

Embryos are placed into your uterus, just like during the Embryo Transfer. Though in this case, the embryos will be thawed, after previously being frozen.

GAMETES:

sex cells that contain half of a person's genetic information. male gametes are called sperm; female gametes are called eggs, ova, or oocytes.

GESTATIONAL CARRIER:

a woman who carries a pregnancy resulting from fertilization with third-party sperm and oocytes. she carries the pregnancy with the intention or agreement that the offspring will be parented by one or both persons who produced the gametes.

GESTATIONAL SURROGACY

Surrogacy describes the process of another woman carrying your baby.

GESTATIONAL SAC:

a fluid-filled structure containing an embryo that develops early in pregnancy, usually within the uterus.

GONADOTROPINS:

potent fertility drugs that provide the patient with the hormones LH and/or FSH.

GONADOTROPIN RELEASE HORMONE (GNRH):

a hormone that controls the synthesis and release of the pituitary hormones follicle stimulating hormone (FSH) and luteinizing hormone (LH). GNRH is produced by a structure in the brain called the hypothalamus.

GONADOTROPIN RELEASE HORMONE AGONISTS (GNRH AGONISTS):

fertility medications used to prevent the pituitary gland from releasing the hormones FSH and LH. it can take up to seven days for the agonists to block the release of FSH and LH.

GONADOTROPIN RELEASE HORMONE ANTAGONISTS (GNRH ANTAGONISTS):

fertility medications that, like GNRH agonists, suppress ovulation. the GNRH antagonists effectively prevent LH release within hours of injection.

HORMONE:

a chemical substance produced by one organ in the body that regulates the activity of another organ.

HOST UTERUS:

also called a “gestational mother.” a couple’s embryo is transferred to another woman who carries the pregnancy and returns the baby to the genetic parents immediately after birth.

HUMAN CHORIONIC GONADOTROPIN (HCG):

the hormone produced in early pregnancy that maintains production of progesterone from the corpus luteum. HCG is also used via injection to trigger ovulation after some fertility treatments, and it is used in men to stimulate testosterone production as well.

HYSTEOSALPINGOGRAM (HSG):

an x-ray procedure used to determine whether the fallopian tubes are open and of normal calibre. the physician injects contrast (“dye”) into the uterus through the cervix. the dye passes through the tubes if they are open. HSG can also reveal information about the configuration of the uterus such as irregularities of the cavity and the presence of polyps or fibroids.

HYSTEOSCOPY:

a minor surgical procedure in which a telescope-like device is inserted through the cervix to view the inside of the uterus. this procedure is sometimes performed in conjunction with a laparoscopy.

HYSTEOSONOGRAM:

a specialized type of ultrasound used to visualize the uterine cavity. unlike a “regular ultrasound examination”, a liquid is instilled into the uterine cavity during the procedure to help determine if the uterine cavity is normal.

IMPLANTATION (EMBRYO):

the embedding of the embryo into body tissue so it can establish contact with the mother’s blood supply for nourishment. implantation usually occurs in the lining of the uterus; however, in an ectopic pregnancy, it may occur elsewhere in the body.

INFERTILITY:

the inability to conceive or to achieve a successful pregnancy over a considerable period of time (typically after one year for a female under the age of 35 or after six months for a female over the age of 35) despite determined attempts by intercourse without the use of contraception.

INTRACYTOPLASMIC SPERM INJECTION (ICSI):

a laboratory procedure in which a single sperm is directly inserted into an oocyte (egg cell) under a high powered microscope rather than allowing the sperm and egg to spontaneously find one another in the dish.

IN VITRO

This Latin term refers to any medical process that takes place outside of a human body, for example in a test tube or petri dish.

IN VITRO FERTILIZATION (IVF):

a procedure in which one or more eggs, each removed from a mature follicle, is/are fertilized by a sperm outside the human body.

KARYOTYPING:

a test performed to analyse chromosomes for the presence of certain genetic defects.

LAPAROSCOPY:

a surgical procedure during which a laparoscope, a slender tool with an attached camera and light source, enables a physician to see the inside of the body. infertility specialists perform laparoscopy to view a woman's reproductive organs. laparoscopy can be used for diagnostic purposes or to perform surgical procedures such as removing damaged tissue and ovarian cysts.

LH SURGE:

a spontaneous or induced release of large amounts of luteinizing hormone (LH) during a woman's menstrual cycle. this normally results in the release of a mature egg from a follicle (ovulation).

LUPRON:

a hormone medication that can create a pseudo-menopause. a drug similar to GnRH, it first stimulates, and subsequently suppresses, the release of FSH and LH from the pituitary gland. Lupron may improve the response to stimulation with gonadotropin medications, may prevent premature ovulation, and may decrease the risk of a cancelled IVF stimulation cycle. It may also be used to treat uterine fibroids or endometriosis.

LUPRON "DOWN REGULATION":

a treatment with Lupron that takes advantage of the suppression of the natural hormones LH and FSH. Down regulation is typically used before starting injections of gonadotropins and stimulation of follicular development.

LUTEAL PHASE:

This is the part of your menstrual cycle where your uterus lining thickens in order to prepare for pregnancy, which happens after your ovaries have already released an egg.

LUTEINIZING HORMONE (LH):

a pituitary gland hormone that causes the ovary to produce testosterone which is subsequently changed into oestrogen. LH also helps to release a mature egg (ovulation). In the male, LH stimulates testosterone production in the testis.

MEDICALLY ASSISTED REPRODUCTION (MAR)

Another term for Assisted Reproductive Technologies (ART). Basically, where science steps in to help you get pregnant.

MENOPUR

A similar drug to Clomid and Metformin, given that they all do the same thing - stimulate the ovaries to help produce eggs. The drug contains HCG.

METFORMIN

A common fertility drug designed to stimulate the ovaries for egg production and regular periods

MICROMANIPULATION:

procedure in which an egg, sperm, or embryo is manipulated under the microscope. manipulative procedures include ICSI, assisted hatching, and embryo biopsy for PGS or PGD

MICROSURGICAL EPIDIDYMAL SPERM ASPIRATION (MESA):

a procedure in which spermatozoa are obtained from the epididymis by either aspiration or surgical excision.

MILD STIMULATION IVF:

The IVF procedure - but with a smaller dose of fertility-boosting drugs. Literally, it means your body is only being mildly stimulated, rather than going the full whack.

MISCARRIAGE:

loss of a clinical pregnancy prior to 20 weeks gestation.

MOTILITY:

the percentage of all moving sperm in a semen sample. normally, 50% or more sperm in a sample move rapidly.

MULTIPLE GESTATION/PREGNANCY:

the conception of two or more foetuses in the same woman at the same time, whether or not they result in live births.

NAFARELIN

The general name for the drug Synarel, which is often used to treat endometriosis. Usually, you take it via a nasal spray.

NATURAL CYCLE IVF

Again, the IVF procedure – but without use of fertility drugs to stop the natural production of eggs. It's all done to your natural menstrual cycle.

OESTROGEN

The female hormone you have that's responsible for looking after your reproductive system. Oestrogen is produced mainly by the ovaries, starting with the onset of puberty and continues until menopause.

Sometimes, you'll see it spelled as 'estrogen'.

OVARIAN FAILURE:

the failure of the ovary to respond to FSH stimulation from the pituitary. this can result from multiple causes such as damage to the ovary, interruption of the blood supply to the ovary, malformation of an ovary, genetic abnormalities in the woman, or natural menopause. diagnosis may be made by measuring an elevated FSH level in the blood.

OVARIAN HYPERSTIMULATION SYNDROME (OHSS):

a possible side effect of medically induced ovarian stimulation and/or ovulation from fertility drug treatments, characterized by swollen, painful ovaries and, in some cases, the accumulation of fluid in the abdomen and chest.

OVARIES:

female sex organs that release mature eggs and produce the hormones oestrogen and progesterone. the ovaries also produce low amounts of testosterone and other hormones.

OLIGO-OVULATION:

irregular and/or infrequent ovulation.

OLIGOSPERMIA:

a condition in which the number of sperm in a semen sample is abnormally low.

OOCYTE:

the egg cell produced in the ovaries. also called the ovum or female gamete..

OVULATION:

release of a mature egg from a follicle at the surface of the ovary.

OVULATION INDUCTION:

the therapeutic use of female hormones or other fertility medications to stimulate egg development and release.

OVUM

Another term for one of your eggs.

PAPANICOLAOU SMEAR (PAP SMEAR):

a screening test to evaluate the cells of the cervix to determine whether they are normal, pre-cancerous, or cancerous.

PELVIC INFLAMMATORY DISEASE (PID):

an infection of the pelvic organs that may lead to blockage of the fallopian tube(s) and pelvic adhesions (scar tissue).

PERCUTANEOUS EPIDIDYMAL SPERM ASPIRATION (PESA):

a procedure in which a needle is used to remove sperm from the epididymis (a long-coiled tube above each of the testes).

PESSARY

Progesterone pessaries are inserted into the vagina or rectum and are an essential hormone for preparing the uterus (womb) for pregnancy and on-going support. Progesterone pessaries are used to supplement or replace your own natural progesterone in IVF programs.

PITUITARY GLAND:

the master gland in the brain; the gland that is stimulated by the hypothalamus and controls many hormonal functions. located at the base of the brain, just below the hypothalamus, this gland controls other body processes including functions of the gonads, the adrenal glands, and the thyroid gland.

POLYCYSTIC OVARIAN SYNDROME (PCOS):

a condition found in women who don't typically ovulate regularly, characterized by excessive production of androgens (male sex hormones) and the presence of small cysts in the ovaries.

POST-COITAL TEST (PCT):

microscopic study of samples of cervical secretions taken several hours after sexual relations. the mucus secretions are then examined for live, moving sperm. most reproductive endocrinologists (infertility specialists) consider this test to be antiquated and not predictive of fertility success.

PREIMPLANTATION GENETIC TESTING (PGT):

screening of cells from embryos for the detection of genetic and/or chromosomal disorders before embryo transfer.

PREMATURE OVARIAN FAILURE (POF):

the loss of ovarian function associated with high levels of FSH and low levels of oestrogen before age 40. the ovary may intermittently produce mature follicles. some experts call this condition ovarian insufficiency since the ovary may still occasionally function and may not be in true "failure".

PROGESTERONE:

the hormone produced by the ovarian corpus luteum during the second half of a woman's menstrual cycle. it prepares the lining of the uterus to accept implantation of a fertilized egg.

PROLACTIN:

a hormone produced by the pituitary that plays an important role in preparing the breasts for breast feeding during pregnancy.

RECIPIENT:

in a donor cycle, this refers to the woman who receives a donated embryo from another woman.

SECONDARY INFERTILITY:

the inability to conceive or carry a pregnancy after having conceived one or more pregnancies. this is in contrast to primary infertility, a condition in which a woman has not previously been pregnant.

SEMEN:

the fluid portion of the ejaculate which provides nourishment and protection for the sperm and a medium in which the sperm can travel to the woman's vagina. semen sometimes refers to the entire ejaculate, including the sperm, although this is technically incorrect.

SEMEN ANALYSIS (SA):

a microscopic examination of freshly ejaculated semen to evaluate such factors as the number of sperm (count), the percentage of moving sperm (motility), and the size and shape of the sperm (morphology).

SONOGRAM (ULTRASOUND):

use of certain frequency sound waves to create an image of internal body parts. used to detect, count, and measure follicles (growth and disappearance) in many fertility treatments. also used to detect and monitor pregnancy.

SPERM:

male sex cells, or gametes. sperm, medically referred to as spermatozoa, are mobile, mature, haploid cells that fertilize eggs. sperm cells provide the genetic information that determines an embryo's sex (gender).

SPERM WASHIN:

The official term for separating individual sperm from semen. This usually takes place after the woman has had her eggs collected during IVF/ICSI treatment.

STIMULATION:

administration of hormones or fertility drugs that induce development of multiple ovarian follicles.

TESTICULAR SPERM ASPIRATION (TESA):

a procedure in which sperm are obtained directly from the testicle by aspiration using a needle. Your partner may have this done to them when their sperm doesn't come out during ejaculation, or they've previously had a vasectomy.

TESTICULAR SPERM EXTRACTION (TESE):

A surgical procedure where sperm is extracted from the testicles – unlike with aspiration, this involves a small incision in the testicles and is done in a hospital. The reasons for this procedure are the same as TESA.

TESTICLES:

the two male sexual glands contained in the scrotum. they produce the male hormone testosterone as well as sperm, the male reproductive cells.

TESTICULAR BIOPSY:

a small excision of testicular tissue to determine the ability of the cells to produce or contain normal sperm.

TESTOSTERONE:

the male hormone responsible for the formation of secondary sexual characteristics as well as the sex drive (libido). testosterone is also necessary for spermatogenesis (sperm production).

TUBAL PATENCY TEST

Also known as HyCoSy, or Fallopian Tube Patency Test, this infertility test uses an x-ray examination to determine if your fallopian tubes are blocked or damaged in any way and are the cause of your fertility issues.

THYROID GLAND:

the endocrine gland in the front of the neck that produces thyroid hormones that regulate the body's metabolism.

URETHRA:

the tube that allows urine to pass between the bladder and the outside of the body. in the man, this tube also carries semen from the prostate gland to the outside.

UTERUS:

the hollow, muscular structure that carries and protects a growing foetus. the uterus, often referred to as the womb, is connected to the vagina through the cervix.

VAGINA:

the canal leading from the cervix to the outside of the woman's body; the birth passage.

VAGINAL ULTRASOUND:

technique used to view follicles, a foetus, or other soft tissues by projecting sound waves through a probe inserted into the vagina.

a baseline ultrasound shows the ovaries in their normal state.

a follicular ultrasound is done to demonstrate maturation of the egg-containing follicle.

a pregnancy ultrasound shows if a pregnancy is in the uterus or in a fallopian tube (an ectopic pregnancy). ultrasound pictures can also be used to measure growth and show foetal viability.

VARICOCELE:

a collection of varicose (dilated) veins in the scrotum which may be associated with poor sperm quality.

VITRIFICATION:

In IVF, vitrification refers to a type of cryopreservation (freezing) of embryos.

Vitrification is 'ultra-rapid freezing' (so, in plain speak, *very quick* freezing), which differs to the traditionally-used process of slow-freezing. It's thought this method provides higher chance of your pregnancy taking, once the embryos have been thawed.

ZYGOTE:

a fertilized egg or embryo, in the early stages of development