## The moral status of in vitro fertilization (IVF) Biology and method

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Infertile couples sometimes resort to IVF in order to conceive a child. IVF is a laboratory technique by which human embryos are conceived in a petri dish which contains a culture medium. The woman is given hormones which stimulate her ovaries to produce up to 30 or more oocyte (ova). These are retrieved by inserting a needle into the ovaries via the vagina with ultrasound guidance. These oocyte are mixed with sperm. The sperm is obtained by masturbation and is usually donated by the husband. If the husband is infertile however, the sperm may be obtained from another man. If the women is infertile, likewise, the oocyte may be obtained from another woman, whose ovaries have been similarly stimulated. The embryos thus conceived are usually allowed to grow up to the four-to-eight-cell stage over three to four days, at which time some of the embryos are implanted in the woman's uterus.

Embryos are sometimes implanted in the uterus other than that of the wife-a so-called "surrogate mother." Some researchers obtain oocyte from women who donate them for financial compensation in order to conceive embryos purely for research purposes. These women are pre-selected because they are judged to have the genetic qualities most appropriate for the purpose of that specific research.

Because of the availability of new culture media, it has recently become possible to let the embryos grow for up to seven days, by which time, only the most vigorous survive. This reduces the number of embryos implanted and increases the number of successful implantations, while also reducing the number of multiple pregnancies. Note that most embryos (up to 19 out of 20), conceived in IVF clinics eventually die. If they are not implanted, they are either "donated" for research, in which case they are killed, or they are kept in cold storage in very low temperatures after which most are disposed of, or eventually die. Since frequently several embryos are implanted at one time, multiple pregnancies occur. Not infrequently, early in pregnancy, some of these embryos are killed by injection of potassium chloride into the embryo's heart. This procedure is euphemistically called "fetal reduction."

## **Catholic Church teaching**

A human being comes into existence at the moment of fertilization of an oocyte (ovum) by a sperm. This fact has been recognized by the science of Human Embryology since 1883, and is still acknowledged today. The Church teaches that a human being must be respected-as a person-from the very first instant of his existence as a human being, and therefore, from that same moment, his rights as a person must be recognized among which in the first place, is the inviolable right of every innocent human being to life. The Church also teaches that from the moral point of view a truly responsible procreation vis-à-vis the unborn child, must be the fruit of marriage.

Pope Paul VI has taught that there is an "inseparable connection, willed by God, and unable to be broken by man on his own initiative, between the two meanings of the conjugal act: the unitive meaning and the procreative meaning."

IVF violates the rights of the child: it deprives him of his filial relationship with his parental origins and can hinder the maturing of his personality. It objectively deprives conjugal fruitfulness of its unity and integrity, it brings about and manifests a rupture between genetic parenthood, gestational parenthood, and responsibility for upbringing. This threat to the unity and stability of the family is a source of dissension, disorder, and injustice in the whole of social life.

What about research on a human embryo?

The Church teaches that medical research must refrain from operations on live embryos, unless there is moral certainty of not causing harm to the life or integrity of the unborn child and mother, and on condition that the parents have given free and informed consent to the procedure. Since stem cell research on human embryos, in practice, invariably causes the death of those embryos, it too stands condemned.

In summary, the Catholic Church condemns as gravely evil acts, both IVF in and of itself, and stem cell research performed on IVF embryos.