

The Catholic Church's Teaching Regarding Stem Cell Research

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"Before I formed you in the womb I knew you, before you were born I dedicated you, a prophet to the nations I appointed you."

--Jeremiah, 1:5

What is stem cell research?

A stem cell is a "blank" cell that has not yet made up its mind as to what it is going to be. Very early in embryonic life, the embryo is filled with these stem cells that have not yet determined what type of cell and tissue they will become. The idea behind stem cell research is that if we can get these stem cells and place them into other humans, those cells will become the kind of tissue that is needed.

The real moral question behind stem cell research is how we get them. The retrieval of stem cells from embryos results in the violent destruction of the embryo and the direct killing of a new human being. Embryos are not the only source of stem cells and embryonic stem cell research has yet to be proven successful, while using stem cells from adults has been proven to be quite successful.

Different types and sources of stem cells

Embryonic type: These are the stem cells taken from the embryo conceived through IVF. As the cells continue to divide, it becomes what we call a blastocyst, which is filled with hundreds of these stem cells. These cells will eventually become bone tissue, heart tissue, brain tissue, pancreas, spinal cord, etc. There are 220 total cell/tissue types that these cells can become. Once they are retrieved, they can continue to grow and grow into what is called stem cell lines. The goal is to place the cells into humans to grow new and healthy tissue that is needed to cure disease.

Embryonic germ stem cells: These are stem cells that are retrieved from the reproductive organs of aborted fetuses. These can also become all 220 cell/tissue types.

Adult stem cells: Adult stem cells are stem cells that are taken from an adult. Umbilical cords, placentas, and amniotic fluid can be saved after birth and adult stem cells can be retrieved from them. Adult stem cells can also be retrieved from bone marrow, from the hipbone, liposuction, and from the nasal epithelium (neural stem cells) from cadavers within 20 hours of death (with full informed consent of family). However, adult stem cells cannot become all 220 cell/tissue types. They are more restrictive and not as flexible. This is why embryonic stem cells are so coveted.

Medical difficulties with embryonic stem cell therapy

Although embryonic stem cells can become all 220 cell/tissue types, they are very powerful and grow very quickly. Because they grow so fast, when they are placed in the body they very often grow tumors. Since embryonic stem cells come from another person, they are almost always rejected. This is what leads to therapeutic cloning: create another just like you, to get stem cells from that embryo so your body will not reject it. To date, there has been no success in using embryonic stem cells in curing any disease.

Successful use of adult stem cells

However, there has been great success using adult stem cells to cure disease. Because these cells can be retrieved from your own body they are much less likely to be rejected. Here are some recent examples of the successful use of adult stem cells:

1. A mother was cured of leukemia using the umbilical cord stem cells from the birth of her daughter.
2. An 11 year-old boy was cured of sickle-cell anemia using an umbilical cord stem cell implant.
3. Six Texans were cured of spinal cord injuries by using neural stem cells retrieved from their nasal epithelium. The stem cells were used to grow tissue to bridge the injury site on the spinal cord.
4. Parkinson's disease has been successfully cured using these same neural stem cells.
5. In addition, some adult stem cells from the marrow of the hipbone have been discovered to be immunologically privileged, that is, they can be placed in anyone and not be rejected. Thus, a generic stem cell can be used to cure many diseases in anyone!

Moral and Ethical Problems with Embryonic Stem Cell Research

The central issue is the destruction of human embryos. One can never destroy human life for therapeutic reasons, no matter how good the reason, no matter the benefit. Thus, any form of stem cell research that results in the destruction of human life in the embryonic form is absolutely morally unacceptable.

In addition, the use of stem cells for medical research that have been obtained from the deliberate and violent destruction of human life is also absolutely morally unacceptable. Therefore using stem cells from aborted fetuses and from already destroyed embryos is immoral. As Pope John Paul II forcefully states:

This evaluation of the morality of abortion is to be applied also to the recent forms of *intervention on human embryos* which, although carried out for purposes legitimate in themselves, inevitably involve the killing of those embryos. This is the case with *experimentation on embryos*, which is becoming increasingly widespread in the field of biomedical research and is legally permitted in

some countries. Although "one must uphold as licit procedures carried out on the human embryo which respect the life and integrity of the embryo and do not involve disproportionate risks for it, but rather are directed to its healing, the improvement of its condition of health, or its individual survival", it must nonetheless be stated that the use of human embryos or fetuses as an object of experimentation constitutes a crime against their dignity as human beings who have a right to the same respect owed to a child once born, just as to every person."

"This moral condemnation also regards procedures that exploit living human embryos and fetuses--sometimes specifically "produced" for this purpose by *in vitro* fertilization--either to be used as "biological material" or as *providers of organs or tissue for transplants* in the treatment of certain diseases. The killing of innocent human creatures, even if carried out to help others, constitutes an absolutely unacceptable act. (EV, 63)

Immoral and moral sources of stem cells

There is no morally legitimate way to retrieve embryonic stem cells because that will always result in the killing of an innocent human being. Embryonic germ stem cells can be morally retrieved from babies who suffered miscarriage as long as parents give informed consent. It would be the same as organ donation. However, as we have seen, aborted babies can never be used. Adult stem cells can be morally retrieved from umbilical cords, placentas, and amniotic fluid. They can also be morally retrieved from a person's tissue as long as there is informed consent.

Common arguments used to experiment on embryos

"Embryos are merely cellular life.": This argues that embryos are not human life but are just cellular life. The reality is that human embryos are intrinsically human. They cannot become cats, zebras, monkeys, etc. The embryo is fully a human being, simply in a different stage of development, just as much as my two year-old is in a different stage of human development than I am. He is still fully human!

"In the Womb vs. In the Test Tube.": This is a ridiculous but often used argument. They will say that embryos that are used in the laboratory are not human until they have the "potential" of becoming human inside the womb. Just because you change their location does not change their nature! Many frozen embryos that have been implanted in a woman successfully mature to birth. Putting human embryos in test tubes or freezing them and stunting or stopping their development does not change their human personhood but merely degrades it!

"Embryos are not persons yet.": Again, false! Human embryos are human persons in that they possess a full human nature. Like all other human beings, embryos have a soul with an intellect and will, emotions, etc. As John Paul II again states:

Human life is sacred and inviolable at every moment of existence, including the initial phase which precedes birth. All human beings, from their mothers' womb, belong to God who searches them and knows them, who forms them and knits them together with his own hands, who gazes on them when they are tiny shapeless embryos and already sees in them the adults of tomorrow whose days are numbered and whose vocation is even now written in the "book of life" (cf. *Ps* 139: 1, 13-16). There too, when they are still in their mothers' womb--as many passages of the Bible bear witness--they are the personal objects of God's loving and fatherly providence. (EV, 61)

Embryos are just as much in the image and likeness of God as any other human being! Simply because they are in a different stage of development does not lessen their personhood. And simply because they cannot exercise their intellect and will yet does not mean that they do not have one. What about newborns? What about two year-olds? They cannot fully exercise their intellect and will yet, are they not human?

Some will argue (even good Catholic theologians and philosophers) that the soul is not infused at conception but later. While the Catholic theologians and philosophers will say this is irrelevant and cannot be proven, I disagree. At the very moment of conception a fully human person exists. I became Lucas Pollice at the moment of my conception. Everything about me, who I am, body, soul, intellect, will etc. came into existence at that moment. And the infusion of the soul at conception is not irrelevant; it is absolutely crucial! One cannot be fully human without a soul. Embryos are not potential human life, or partial human life. They are human persons in every sense of what it means to be human.

Practical Arguments for Life Beginning at Conception

- Immaculate Conception argument: The Church proclaims infallibly that Mary was free from sin *from the moment of her conception*. The Church does not proclaim the Immaculate Infusion, the Immaculate Implantation, or the Immaculate Birth. Mary is the Immaculate Conception in that at the moment of her conception the person Mary, fully human in every sense and possessing a human soul, had no sin. Why would being free from sin matter at conception if she had no soul?
- The visceral reaction argument: If you were to offer embryos as a type of human caviar, would anyone in their right mind eat them? NO! In the same way that someone would not eat a person, because human embryos are human persons and we know it in our very being. The same goes for cloning. There is a visceral reaction against cloning because it is such a grave violation of the human person.
- Personal testimony argument: Each and every one of us was once an embryo. How would we have liked to be treated? “As a former embryo myself, I have the authority to speak on this!”

In conclusion, while science is a gift from God and can be used in many ways for the good of humanity, it must always halt before the sacredness of human life so as not to destroy life or the source of life and love. The Church will continuously defend the sacredness of all human life, from the moment of conception to natural death, from the jaws of science and technology that is continuing to wildly veer out of control with little or no ethical consideration. Catholics and all Christians should fight vigorously to bring the light of Christ into the area of biomedical research. We are all called to be the heralds of the culture of life in a world that seems to be all the more embracing the culture of death.