

# Human Embryonic Stem Cell Research- Both sides of this ethical dilemma

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Human Embryonic Stem Cell research has generated much interest and public debate since 1998 when James Thomson successfully succeeded in removing the first human embryonic stem cells from spare embryos in a fertility clinic in Madison, Wisconsin (Weiss, 1996 n. p.). This new found stem cell created an **ethical** dilemma. When looking at this ethical dilemma that has developed around this topic, we must first look at what embryonic stem cell research is. We then must look at both sides of the dilemma (pros and cons). By looking at the “pros” and “cons” of the issue, we can determine if these are consequential or non-consequential forms of utilitarianism. By examining this ethical dilemma may someday help determine when life actually begins and to what extent this research may benefit the world or jeopardize its existence.

Human embryonic stem cell research is the research of stem cells that have been developed through the process of in vitro fertilization (IVF) in laboratories. These embryonic stem cells are harvested from the blastocysts which have developed from precursors, zygotes. The zygote develops into the blastocysts at day four to five (by Explorable.com, 2011 n. p.). There are two cell types in the blastocysts. There is the inner layer cell mass (embryoblast) in which will later become the developing fetus. This inner cell mass has a fluid-filled cavity which surrounds it which is called the blastocoel. Outside of that is a single layer, the trophoblastic, which will eventually combine with endometrial cells of the uterus and become the placenta. This inner cell mass contains Pluripotent stem cells which have the ability to develop into many different types of cells in the body and multiply rapidly (Lloyd, 2003 n. p.). The key reason why embryonic stem cells are more valuable than other stems cells is because they can multiply rapidly, were as they other types have a slower process because they have already taken on the determined cell type.

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First and ultimate ethical dilemma associated with embryonic stem cell research is the true definition of what is considered a human life. The individuals in support of stem cell research, the individuals that give us the pros, believe that life does not start until has attached to the uterine wall of the uterus and has a fetal heart beat. In response to that, we have the individuals or groups opposed to embryonic stem cell research, the cons, which believe that human life begins when the sperm fertilizes the egg. They believe that we as humans should protect their rights because of their inability to represent themselves (by Explorable.com, 2011 n. p.). Everyone has the right to have their own opinion, but with that being said no one has ever taken the time to prove one or the other. Furthermore, depending on who the governmental official is during a certain time period can determine what type of research is allow and funded (Wikipedia, 2011 n. p.).

Two moral principles of embryonic stem cell research dilemma in which we are forced to choose between are the duty to alleviate or prevent illness and our duty to respect the value of human life in which we consider to be referred to as “human life”( Hug, K. 2008 n. p.) Both of these moral principles evolve around utilitarianism—the good is whatever yields the greatest utility; proposes that if in a situation where one is faced with a moral choice one should do that which results in the greatest numbers of happiness. We then must look at the consequential moral theory in which we judge whether an action is better than the alternative and non-consequential moral theory in which the acts are judged right and wrong independently of their consequences. At this point is when the question arises; whom or who are the judges and to what actions is better than the alternative a whom or who are we to judge right or wrong independently of consequences that may or may not arise? As the pros and cons are compared, we will see who or whom the judges are and what actions are better than the alternative.

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One of the pros to embryonic stem cell research is the potential of treating a number of diseases, such as heart disease, diabetes, Parkinson's disease, and Alzheimer's disease; along with some forms of cancer (by explorable.com, 2011 n. p.). These diseases are normally found in our genetic make-up. Another pro to embryonic stem cell research is the potential of treating damage to organs in our body, such as spinal cord injuries, birth defects, replace or repair damaged organs, and reduce risk of transplantation (by explorabel.com, 2011 n. p.). Some people believe that God is who made us who we are. With that being said, if we as humans are able to find cures for different diseases; shouldn't we be able to use those findings since these findings are part of us who God has made?

The cons that are associated with these pros are such things as; human life should not be tampered with, we as humans should not be playing God, and stem cell research could someday lead to devastating consequences such as nuclear research, cloning, and animals that can have off-springs that are human (by Explorable.com, 2011 n. p.). With this being said, if we always look at what could be the negative in science we may not have been able to land on the moon or invent vaccines that can prevent plague causing diseases.

Other pros that come into play are such things as; benefits of embryonic stem cell research is more efficient than that of adult stem cell research, if we have these frozen egg and sperm that have been harvested that will be destroyed eventually, why not benefit from them, and this research could give great insights about the basics of the human body (by Explorable.com, 2011 n. p.). It is also believed by certain groups that life does not begin until there is a heartbeat or the embryo has attached itself to the uterine wall. We look back at all the time that has been lost by the restrictions that have been put in place when it comes to embryonic stem cell research and many wonder just why?

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We then must look at the cons that go along with the above listed pros. Many argue that a fertilized egg should be considered a human life, even in the very first weeks of life. Another argument is that the scientific value has been exaggerated and we are not sure if we can use stem cells to clone transplantable organs, thus outweighing the benefits of using embryonic stem cells for this use. It is also argued that destroying one human life to save another is unethical. It is also argued that we should develop better means of researching more ethical methods, such as adult stem cells, to use in place of embryonic stem cells (by Explorable.com, 2011 n. p.). The sad part of this is, this route has been explored and embryonic stem cells grow rapidly and have a better ability to transform themselves into different cell or tissue types.

When we look at the pros and cons related to embryonic stem cell research, we need to also discuss them in terms of utilitarianism (consequentialism vs. non consequentialism). Consequentialism is when actions are judged on the basis of whether the action is better than the alternatives. In the case of embryonic and adult stem cell research when it comes to the scientific consideration, embryonic stem cells are considered pluripotent (the ability to become any cell type of the body) whereas adult stem cells are limited because they cannot differentiate into any other cell other than their origin (Bethesda, MD 2012, n. p.). Furthermore, embryonic stem cells can grow relatively easier in culture, whereas adult stem cells are rare in mature tissue and isolating them is hard to do thus limiting the amount that can be cultured any one certain time. It takes a large number of stem cells when replacement therapies are being performed (Bethesda, MD 2012 n. p.). By definition of consequentialism, I would have to say that embryonic stem cell research is a better alternative than that of adult stem cell research. Also, when considering consequentialism and choosing to benefit from the possible diseases that embryonic stem

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cell research could someday cure would be beneficial to human kind verse the alternative of death caused by these diseases.

As we take a look at the cons of embryonic stem cell research and non-consequentialism views in which acts are judged on what is right and wrong independently of their consequences (Mackinnon, B. 2007). These individuals are judging the acts of embryonic stem cell research on whether it conforms to their belief of when life actually begins and how it relates to human dignity. Also, they do not disagree that stem cell research is not needed, but that embryonic stem cell research is unethical because we are choosing one life over another. On the other hand they believe that adult stem cell research and therapy does not go against any ethical morals

In conclusion, the pros and cons of embryonic stem cell research have evolved into a large ethical dilemma. Also, depending on who is leading our nation can determine what can be researched and what is not, by placing restrictions on or off stem cell research. We have looked at both sides of the issue of embryonic stem cell research and how it relates to utilitarianism—consequentialism vs. non-consequentialism. But when all is said and done, maybe the problem surrounding embryonic stem cell research is that too much debating is being done. Maybe if these groups were more interested in proving when life actually begins and determining what could cause possible abnormalities in the future, we could come together and set up guide lines that all can live by. More important is to determine if embryonic stem cell research, let alone any other stem cell research, cause further harm to the world as we know it. By preventing the natural means in which population was once controlled, such as disease (Wikipedia, 2011, n. p.), will the world become so over populated that life will not be able to continue.

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Bethesda, M. (2012, June). *Research ethics and stem cells*. Retrieved from Stem Cell Information the National Institute of Health resources for stem cell research:  
<http://stemcells.nih.gov/info/pages/ethics.aspx>

Bethesda, M. (2011). *Stem Cell Information*. Retrieved from Stem Cell Information the National Institute of Health resources for stem cell research:  
<http://stemcells.nih.gov/info/basics/pages/basics5.aspx>

Dick, E. (2010, October). *The Moral dilemmas of stem cell research*. Retrieved from Campus Times:  
<http://www.campustimes.org/2010/10/21/the-moral-dilemmas-of-stem-cell-research/>

Explorable.com. (2011, November). *Stem cell research*. Retrieved from Explorable:  
<http://explorable.com/stem-cell-pros-and-cons>

Hug, K. (2008). *Embryonic stem cell research: an ethical dilemma*. Retrieved from EuroStemCell:  
<http://www.eurostemcell.org/factsheet/embryonic-stem-cell-research-ethical-dilemma>

Lloyd, E. (2003). *What is a Blastocyst?* Retrieved from WiseGeek clear answers for common questions:  
<http://www.wisegeek.org/what-is-a-blastocyst.htm>

MacKinnon, B. (2007). Stem cell research, cloning, and genetic engineering. In *Ethics theory and contemporary issues 7th edition* (pp. 402-405). Wadsworth Cengage Learning.

Wikipedia. (2012, December). *Overpopulation*. Retrieved from Wikipedia The Free Encyclopedia:  
<http://en.wikipedia.org/wiki/Overpopulation>

Wikipedia. (2011, January). *Stem cell controversy*. Retrieved from Wikipedia The Free Encyclopedia:  
[http://en.wikipedia.org/wiki/stem\\_cell\\_controversy](http://en.wikipedia.org/wiki/stem_cell_controversy)