

What is Health Ethics?

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Why is stem cell research ethical?

Why is organ donation ethical?



“A set of moral principles, beliefs and values that guide us in making choices about care (Health Care Ethics).”

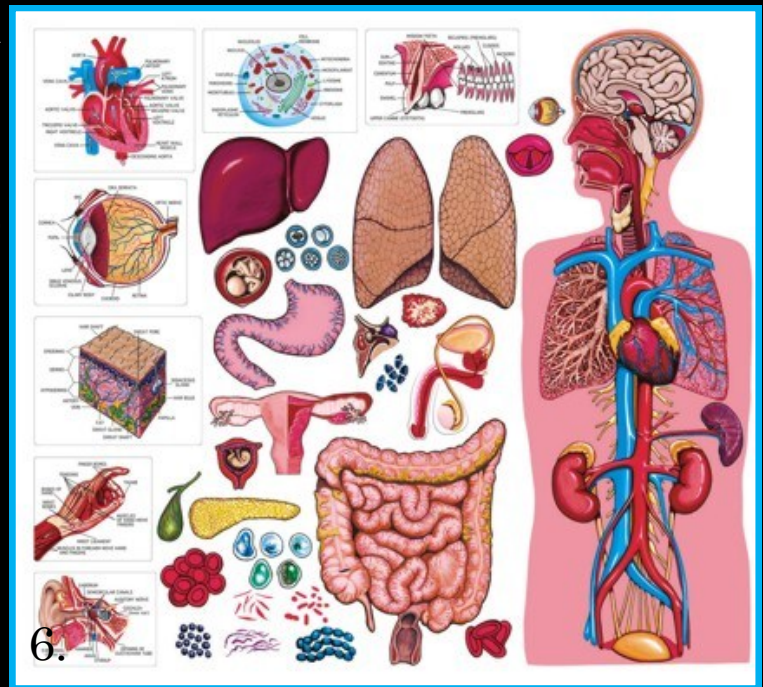


The questions that need to be addressed...

How far is too far in letting science progress? How much is too much to ask of someone? What values and morals need to be held?

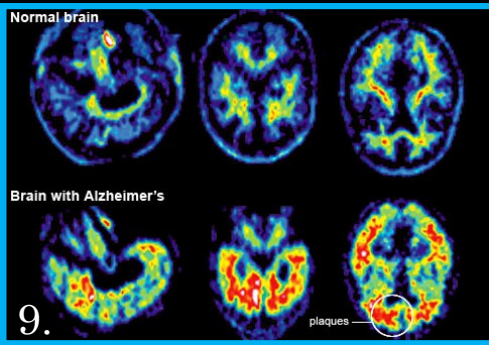


There are 78 organs in the human body and 13 major organ systems (How Many Organs). Those organs work together systematically in order to keep us alive and healthy. So what if one of those organs stops functioning? What if one of those organs becomes infected with a disease? Is there any way to fight this? Are there any cures or treatments available?



Organ donation is when a person allows their organs or tissue to be removed after clinical death and transplanted in another person. The surgical process of removing the organs from one person and inserting them into another patient is called organ transplantation. Most organs and tissues that are donated are received from people who have died. However, a living person can donate as well (Office of Women's Health). For example, an organ that can be donated before the donor's death is a kidney. Also, tissue, skin and even blood are considered human donations. There can be many complex complications that can ensue after transplantation. The recipients are typically very sick people and have been on the organ donation waiting list for months or even years. Once a donor is diagnosed as clinically brain dead, they are eligible for donation. Kentucky Organ Donation Affiliates (KODA) is Kentucky's non-profit organ donation organization. They have social workers, physicians and nurses that promote organ donation, and they work with the healthcare teams to harvest organs after a donor death.



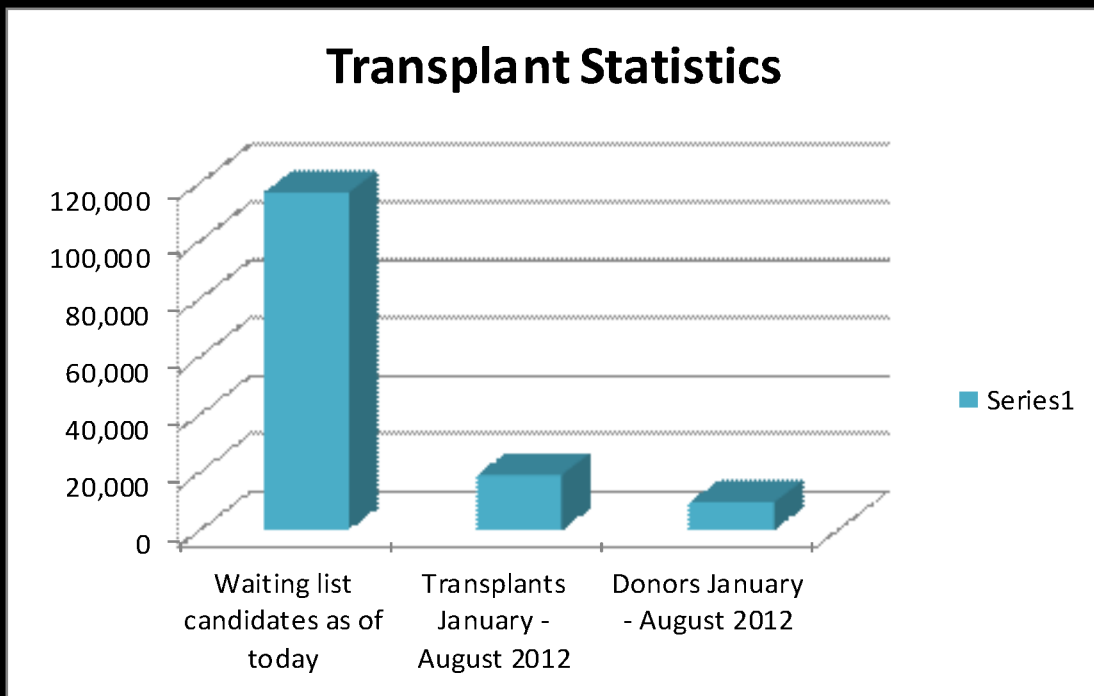


Diabetes, Heart disease, and Alzheimer's disease are just three out of the many other chronic diseases that could benefit from the progression of Stem Cell research.

According to the Projection of chronic illness prevalence and cost inflation in 2005 there were 133 million Americans that were reported to having at least one chronic illness (Wu). This is approximately one out of every two adults that are living with a disease that has no cure or treatment. Out of those people how many will end up surviving? How long will they have to suffer? With such staggering statistics, there is a rush to finding cures and treatments. While there are many science progressions that are coming about, one of the most promising methods in the medical field right now is stem cell research. For most, this research isn't something that has never been heard of, but a lot of people do not know how it works. Eventually, treatments and possibly cures will be realistic outcomes of this research.

The type of stem cells that are most beneficial to this research are embryo. That is why this research hasn't gained full support. A recent poll produced by CNN found that 62 percent of Americans want abortions to be illegal (Ertelt). With more than half the population wanting abortions to be illegal, scientists are discovering new ways of attaining stem cells. This could be through adult stem cells, bone marrow, and even umbilical cords.





As shown from this chart, it is clear that the number of candidates on the waiting list far outnumbers the number of donors. There are 116,756 Americans on the waiting list for an organ, and there were only 10,536 donors through the months of January - August 2012. KODA and transplantation surgeons are very specific on who can donate and the exclusion criteria for transplantation. Even if a patient or their family wants to donate organs after death, they can be rejected if the patient suffers certain disease processes. Immediate exclusions for organs are the following: HIV or AIDS, certain cancers and blood diseases or systemic sepsis. Of course, patients with chronic heart conditions cannot be a heart donor, chronic lung patients cannot donate lungs, hepatic insufficiencies prevent someone from donating their liver, etc.





Every person has the right to choose whether or not to be a donor. The system that is in place in America today is called “opting in.” This means you have the right to choose to become

a donor after death. Most donors that supply organs for transplantation are patients that have been declared brain dead. According to an article in New York Times, there are roughly 12,000 to 15,000 people who are declared brain dead, but only half of those patients donate (Thaler). A person can donate on average three organs, so even adding just a few more to the list will really make an impact.

One way to solve for the shortage of organs is to change the system we have to “opting out.” This is also known as “presumed consent.” Presumed consent is where every person is considered a donor unless they choose to opt out and not be a donor after death. This approach would inevitably increase the pool of organs. Most people just don’t take the time to sign up and become a donor, or do not tell their relatives their wishes to donate. The only concern that some citizens would have is if donating organs conflicted with their religion. As stated in the article, a proposal of presumed consent was opposed by Muslims because it organ removal is not accepted.

It is clear through statistics that making a simple change such as this, the donor pool would increase. Comparing the consent rates from Germany and Australia, two similar countries, in Germany there was a 12 percent consent rate, which has an opt-in system. In Australia, which has an opt-out system, there was a consent rate of 99 percent (Thaler).





In the United States, women have the right to decide if they want to abort their child for any particular reason during the nine months of the pregnancy. This was made legal by the U.S. Supreme Court case Roe vs. Wade. Since this ruling in 1973, according to Wisconsin Right to Life, over 53 million women have had an abortion performed in the United States (Fast Facts). The mother (patient) has the right to have the child or to abort it and she is the only one in control at this point. Whatever choice made is solely made by the mother. With that being said, this decision does have a negative outcome of a life being lost. But, what if something so negative could be turned into something positive? Stem cell research's most effective way of developing is with the use of embryos. Embryos are vital to this research because they are able to turn in to any cell type in the human body.

Many lives are never given the chance to breathe, but with the progressions that stem cell research can make with the use of embryos, lives that are being shortened because of a chronic disease will be granted a whole new beginning.





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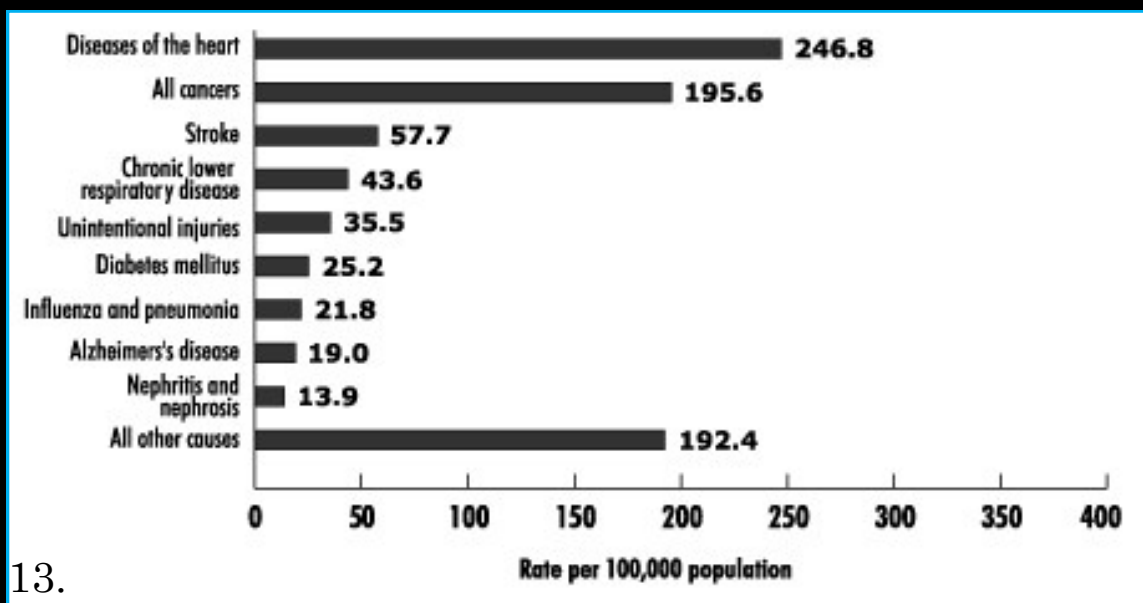
For a majority of patients who need an organ transplant, they find themselves waiting months or even years for a matched organ. The organ that is in highest demand is the kidney. The reason for most kidney transplants is end stage renal failure (ESRF). This is the point where patients must undergo dialysis to artificially remove waste from the body since their kidneys are not excreting properly. Dialysis is a very expensive and time consuming treatment option. Hemodialysis is an aggressive form of dialysis that pulls a

large amount of fluid and waste out of the body at once. The average treatment lasts about four hours and is done approximately three times a week, depending on the severity of the disease process. Patients who are too unstable to remove large amounts of fluid and waste at once are placed on a dialysis machine at the ICU bedside. This machine runs 24/7 until the patient stabilizes. Patients have to endure this aggressive treatment because there are not near enough organs available for transplant. In order to “help the patient advance their own good”, legislation should be changed in order to end suffering and death. The alternative option to presumed consent is to create a market. If an organ market was adopted in America today, both parties would benefit. There is a market that already exists between live donors and buyers, also known as the black market. This market is illegal, but if it were regulated by the government there would be a set price, and they could allocate the organs as well.





Stem cell research gives a patient that is suffering from a chronic disease hope that there might one day be a cure. In some cases, the diseases that people are facing have been passed down from generation to generation. This research is patient-focused, and it can end up benefiting them. The diseases that stem cell research are trying to find treatment and cures for are some of the most damaging and hardest diseases for a person to live with. Even if stem cell research can only find a cure for one chronic disease, that would end up benefiting a multitude of individuals.



The graph above shows clearly that there is an overwhelming amount of people who are suffering from diseases that have yet to find a cure. It is sometimes hard to see these statistics and put them in perspective of how many people are living with incurable chronic diseases. If stem cell research could find the cure for one of the diseases listed above, think about how many people's lives would be saved. Think how much brighter their future would become.





Patients today across America suffer from many diseases that render their health and require hospital care. Those patients who need an organ transplant wait years sometimes for an available organ. In order to follow the definition, to do no harm, more organs need to be made available.

- In the 1970's the Uniform Anatomical Gift Act (UGUA) was enacted in almost every state. This act permitted the use of donor cards as well as family consent when the patient didn't have a donor card or it could not be found.
- In the 1980's Required Request was enacted at the state level. It was insured by the national hospital accrediting agency that all families of hospital patients declare brain dead or asked to be an organ donor.
- In the 1980's state laws created computer registries of people who were signed up to be an organ donor after death.

Hospitals are now required by state laws to honor donor cards even if it is against the families wishes.

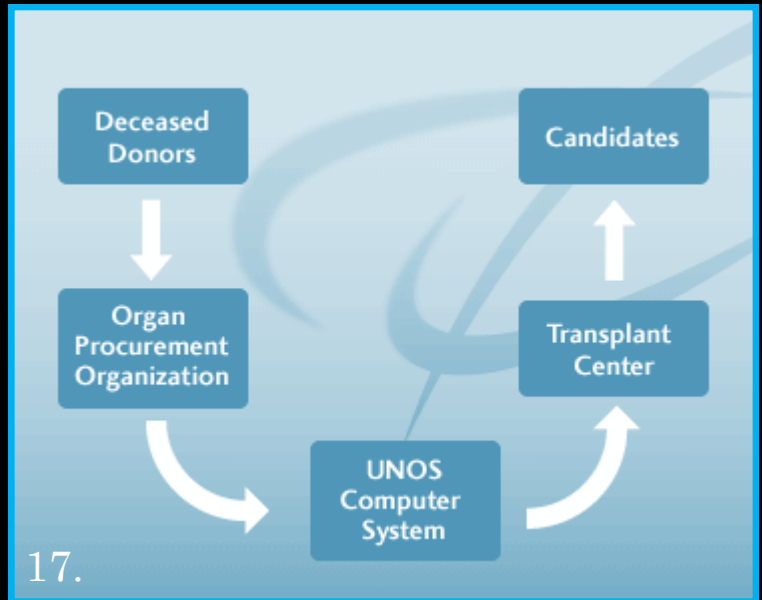
- In the 2000's Pennsylvania, Delaware, and other states proposed ideas of presumed consent.





There are a multitude of individuals in the United States that are suffering from one or more chronic diseases. Viacord.com states that stem cells, “have the ability to treat, repair and/or replace damaged cells in the body” (Cord Blood FAQs). It is evident that stem cell research is trying to reach treatments and cures so that no more harm is done to the people that suffer from incurable disease processes. Too many individuals have to cope with knowing that they have a disease that has yet to find a cure.





The above diagram shows how organs are obtained from deceased donors, harvested by the Organ Procurement Organization, registered in the UNOS Computer System, and then transferred to a Transplant Center for transplantation into the recipient.



When it comes to organ donation, the process of allocation has set rules and principles in order to treat every patient equal and every unique case equal. The conditions are different for every organ, but a few general considerations are: age, blood type, medical urgency, waiting time, geographic distance between donor and recipient, size of the donor organ in relation to the recipient and the type of organ needed.





The research that is found with the use of stem cells and the treatments that could possibly arise from it are not going to be targeted toward any particular social class. This research is for every age, race, wealth, and gender and is trying to progress to save millions of lives, now and in the future.



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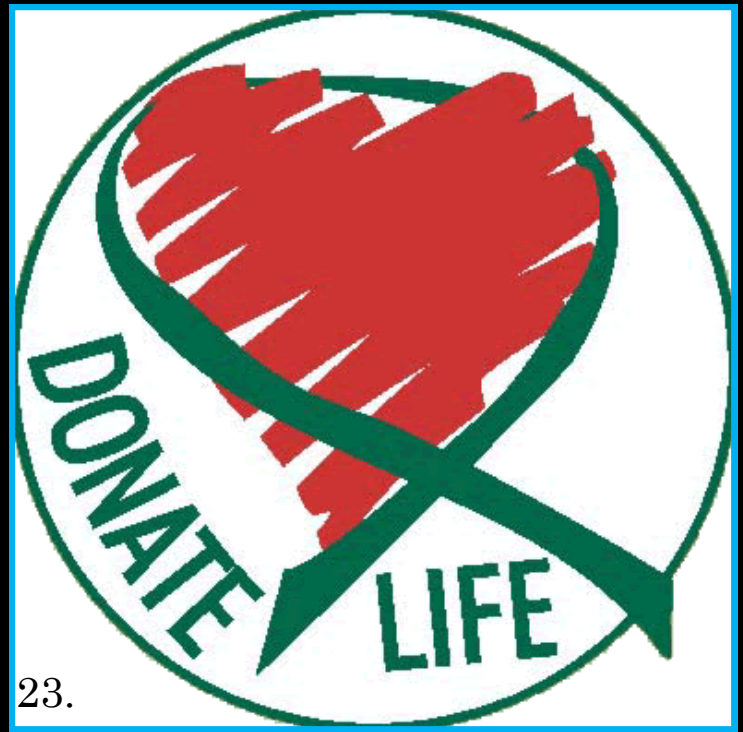


For any research to progress, there needs to be some type of support system in place. While stem cell research has not gained complete support, it is starting to make strides towards it. There are many organizations that are trying to make the public more aware of all the good that can come from this research. One of the main issues is that people don't fully grasp all the ideas and concepts behind it. An organization that is trying to spread the word about stem cell research is Viacord from PerkinElmer. This organization is trying to stay away from abortions and persuade mothers to donate their newborn's umbilical cord. Viacord.com includes any information that potential donators might be wondering about. Information such as what stem cells are and how they can benefit a patient, if there are any risk for a mother or her child, what types of diseases can be treated with the stem cells from the umbilical cord, how to sign up and the pricing of donating her child's umbilical cord. This is a great start to informing the public of what stem cell research is ,and that there are different means to gaining stem cells other than abortions.



Steps to take:

A person of any age can be a donor; there is no age limit. Children under the age of 18 need a parents' consent to donate. Persons older than 18 can consent by signing a donor card or signing their driver's license. It is also suggested that you tell your family your wishes of becoming a donor. In Kentucky, a patient's family can overturn any end of life care wills made by the patient if they are incompetent of making their own decisions. At the point of medical incompetence, the medical Power of Attorney (POA) can make all medical decisions for the patient, regardless of their stated, or legally documented, wishes.



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