

Organ transplants interest me because I think it is fascinating how you can cut somebody open, replace a part of them, and save their life. I love the fact that this kind of miracle affects so many lives every day.

Organ transplants are crucial for people in need. However, the waiting list is consistently growing by approximately 4,000 people a month. On average, eighteen people die every day while waiting for an essential organ, such as a liver, heart, or kidney. Organ transplants can be a life saving experience in many peoples' lives. There are four types of organ transplants, and rejection was not easy to prevent until a breakthrough discovery was made in 1980. The first successful kidney transplant was in 1959, followed by a liver transplant in 1963, and heart transplant in 1967. Because of the length of the waiting list, only one in four people will receive a vital organ in time to benefit them, and people may only be added to the list if the transplant is crucial.

There are four main types of organ transplants. These include autografts, syngeneic grafts, homografts, and xenografts. An autograft, or isograft, is a transplant using a person's own tissue. Autografts are usually performed after a burn or surgery when the skin is so badly damaged that it cannot heal itself. The skin is taken from another part of the body. A syngeneic graft is a transplant in which they take an organ from a genetically identical human, or in other words, an identical twin. When an organ is used from an unrelated human, it is called a homograft or allograft. Blood transfusions and heart and kidney transplants are the most common homografts. Organs taken from a different species, such as a cow or pig, is known as a xenograft or heterograft. One of the most common is transplanting a heart valve from a cow or pig into a human (Ballard 5-7).

Rejection of organs was the biggest problem during a transplant. The immune system attacks foreign parts, but a major breakthrough discovery was made in 1980. Cyclosporine was discovered, which prevents rejection of organs. This drastically increased the survival rates of transplants.

In 1954 identical twin, Richard Herrick became the successful kidney transplant recipient. Because he was dying of kidney disease, his identical twin brother, Ronald, donated one of his kidneys to him. Doctor Joseph Edward Murray performed the transplant at the Peter Bent Brigham Hospital in Boston, Massachusetts. The kidney did not appear foreign because it was identical, so it was not rejected and therefore this made it the first successful kidney transplant. This was also the first transplant of a major organ (“First Successful Kidney”).

Thomas Starzl became the first doctor to attempt and successfully complete a liver transplant in 1963. The first attempt was on a three year old boy who had been born with an incomplete liver, although he died shortly after due to uncontrollable bleeding. However, Starzl attempted again two months later on a man with cancer. Fibrinogen was given to the recipient to help clot blood. The transplant was successful, but the patient died three weeks later after suffering complications from blood clotting (“Thomas Starzl Biography”).

The first heart transplant was performed in 1967 by a surgeon named Christiaan Barnard and a surgical team of thirty members at Groote Schuur Hospital in South Africa. 53 year old Louis Washkansky who suffered from diabetes and heart disease was the recipient. Denise Darvall was only 25 years old when she was in a car accident and became brain dead. Her father approved of the transplant and removed her from life support. Washkansky had taken immunosuppressive drugs which prevented rejection, making the transplant a success. However, the drugs weakened his immune system so much that he developed double pneumonia and died

eighteen days after the transplant (Long). In 1969, the first artificial heart was used in a patient to replace the natural heart until they could have the natural heart ready. At the Texas Heart Institute a team of surgeons led by Denton A. Cooley kept a patient alive for sixty four hours with an artificial heart until a natural heart was found. Barney B. Clark was the first recipient to receive a permanent artificial heart, and he lived for 112 days. Because artificial hearts limit quality of life, they are only used temporarily today (Samuels).

The organ transplant waiting list is currently over one hundred thousand people long in the United States alone. Only people that are in dire need of an organ are added to the list, but they are overlooked if the outcome is expected to be poor. (Baumgartner) Approximately four thousand people are added to the waiting list every month, and only about twenty five percent will receive a vital organ in time to help. An estimated eighteen people die every day while waiting for a vital organ. Less than half of the people that die every year donate organs, while so many that do not, meet the criteria to (“25 Facts”). Because you can donate part of your liver and kidney and live without it, many family members donate organs to loved ones, and about twenty percent of live donors donate an organ to an unrelated person (Klotzko). Organ donors are very much needed today.

Organ transplants save and change many peoples' lives. Kidney, liver, and heart transplants are the most vital and familiar, but countless people in need do not receive a certain organ in time. So many of people could be saving lives, over one hundred thousand people in just the U.S. need their help! If you qualified to be an organ donor, would you save a life?

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