

Tough Decisions Regarding . . . Organ Donation and Transplantation

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Fifty years ago, there was no controversy. If someone's organs were failing, either from disease or poor genetic endowment, the only hope was medicinal therapy. Prior to modern-day transplant procedures, surgical interventions focused primarily on replacing limbs or teeth—although success rates were dismal at best. During the late nineteenth and early twentieth centuries, a number of animal organs were transplanted into humans—but without success. But the seed took root. The first reliable report of transplant surgery is from 1823, when German surgeon Carl Bunker performed plastic surgery on a woman's nose by grafting skin from her thigh. In 1906, Austrian ophthalmologist Edward Zim performed the first corneal transplant, paving the way for surgeons to use dead or donated material. But the major breakthrough occurred in 1954 when two medical doctors, Joseph Murray and David Hume, performed the first successful living-related kidney transplant from identical twins. This opened the door to what would soon become the promise of renewed health and life for literally thousands of individuals. Almost fifty years later, doctors have reported successful heart, lung, heart-lung, pancreas, pancreas islet cell, intestine, and liver transplants. But, the question arises, "Is this new medical technology in compliance with God's will?" What should Christians know about organ transplants, and should we support this fast-growing practice?

IS IT ACCEPTABLE?

The Red Cross lists "Statements from Various Religions" regarding their acceptance or rejection of transplantation practices (see Red Cross, n.d.). The spectrum of positions taken by the religious organizations listed, ranges from those that strongly support organ donation as "an act of charity, fraternal love, and self sacrifice" to those who are strictly against such donations. Under "Church of Christ," the listing states simply: "Organ transplants should not be a religious problem." While this may appear to answer the question of whether or not it is acceptable to support organ donation and transplantation, the truth is that this statement—in and of itself—is devoid of any real significance. The truth can be determined only from within the pages of God's Word, and it is there that we must go for guidance in answering controversial questions such as these. Most arguments for and against organ donation and/or transplantation fall into three categories: (1) those centered on loving one's neighbor; (2) those dealing with treatment of the body; and (3) those that discuss the resurrection.

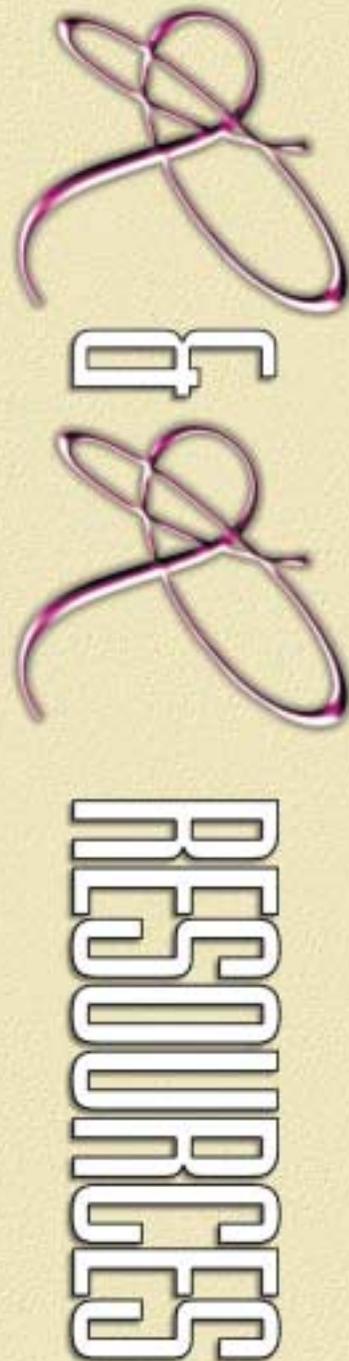
Love Your Neighbor

One of the strongest arguments for organ donation is the love and compassion such an act exhibits toward others. We all are familiar with the biblical premises of "loving our neighbors" and "doing unto others as we would have them do unto us" as we try to emulate Christ's unconditional love. While the command to "love your neighbor" was quoted by Jesus (Matthew 5:43), Paul (Romans 13:9), and James (2:8), it can be traced all the way back to Leviticus 19:18. From the earliest days in the Old Testament, we learn that God's people were commanded to demonstrate a love for God **as well as for their neighbors**. Consider the sacrifice that Jesus Christ was willing to make as He gave up His body for all of humanity. John summed up the command well when he wrote: "Beloved, if God so loved us, we ought also to love one another" (1 John 4:11).

As Jesus was trying to convey this message of unconditional love for others, He spoke of caring for the hungry, thirsty, homeless, naked, sick, and imprisoned (Matthew 25:35-46). He went on to clarify: "Verily I say unto you, inasmuch as ye have done it unto one of the least of these my brethren, ye have done it unto me" (Matthew 25:40). Jesus also used the parable of the Good Samaritan (Luke 10:25-37) to teach that we, as Christians, are to be kind and show love toward everyone. The Samaritan neighbor bandaged wounds, poured oil, and transported the injured man to a place so that he could recover. Medical history records that anointing with oil, bandaging wounds, and transporting a person to a place where he or she could rest, represented **the very best medical care available in that day**. Given a similar situation today, would we not use the best medical technology available to prolong the life of those in dire need? And do we not have the technology and ability today to successfully transplant organs? Success rates for properly matched kidney and heart transplants are well into the upper 80% range. If a practice or procedure is not contradictory to biblical principles, then it should be considered permissible, and faithful Christians can support it.

The Body is a Temple

It also is important to address the issue of mutilation, since some view organ donation as the ultimate form of mutilating the human body. Frequently, passages such as 1 Corinthians 6:19-20 are used to defend the idea that organs should not be harvested from a person's body. As stewards of God's creation, we should treat our bodies with respect, and ab-



stain from whatever is deleterious to them. However, when Paul wrote those words to the Christians at Corinth, he stated: “Therefore glorify God in your body, and in your spirit, which are God’s” (v. 20), indicating this was something that was to be carried out while the individual was still living. In the apostle’s second letter to the church at Corinth, he reminded them: “For we know that if our earthly house of this tabernacle were dissolved, we have a building of God, an house not made with hands, eternal in the heavens” (5:1).

Others have suggested that passages in which Jesus taught that we should rid our bodies of our hands, feet, or eyes if that part causes us to stumble (cf. Matthew 5:29-30, 18:8-9, and Mark 9:43-48), permit and support organ donation. Understanding these passages in their proper context reveals, however, that Jesus was not advocating self-mutilation or organ donation. He was, in fact, emphasizing the seriousness of permitting sin into one’s life, and encouraging extreme measures to prevent sin.

The Resurrection

One frequent misunderstanding among Christians is the idea that the entire body needs to be present and preserved in some fashion for the resurrection. As such, many Christians are reluctant to donate organs because they believe resurrection requires a “complete” body. Where does this idea leave the countless millions who died more than 50-100 years ago—before vaults were used to help delay the decomposition process? If you were to visit the gravesites of individuals who passed away before the twentieth century, both the body and the casket already would have decomposed. When God was doling out punishments in the Garden of Eden, he told Adam: “In the sweat of thy face shalt thou eat bread, till thou return unto the ground; for out of it was thou taken, **for dust thou art, and unto dust shalt thou return**” (Genesis 3:19, emp. added). Thus, God avowed that one day, our earthly bodies would return to the soil.

Additionally, we need to possess a proper understanding of what will transpire at the resurrection. Paul, in writing to the Corinthians, provided some insight as to the difference between the physical body at death (which may be disposed of in a variety of ways) and the spiritual body of the resurrection (1 Corinthians 15:35-49). He used the analogy of the difference between a seed and the product of that seed to illustrate the difference between the earthly body and the resurrected body. He then went on to comment: “It is sown a natural body; it is raised a spiritual body. There is a natural body, and there is a spiritual body” (v. 44). If we believe that

the bodies raised at the resurrection represented simply a “reoccupation” of our earthly bodies, then we possess a false concept of our resurrection as presented in the Bible. We are told that the earthly body—that of flesh and blood—will **not** enter into the heavenly inheritance (1 Corinthians 15:50). Revelation 20:13 informs us that the seas will give up the dead that are in them, thereby indicating that even those buried or lost at sea will be accounted for on the Resurrection Day. Based on these facts, Christians should not fear or reject organ donation merely in an attempt to keep the physical body intact for the resurrection.

THE SLIPPERY SLOPE— BRAIN DEATH DEFINED

While the Bible does not speak against organ donation, people who revere God’s Word still feel a certain amount of reservation concerning the harvesting of organs—and for good reason. There is nothing ethically wrong in recovering organs from the dead, but most successful organ transplants require that any prospective organs be kept alive with blood and oxygen flowing through them until they are removed from the body. This quandary is indeed problematic, for we cannot, and must not, support the termination of life in favor of organ donation.

In the late 1960s, the Uniform Anatomical Gift Act was passed into law in every state in this country. This piece of legislation allows individuals, while still living, to authorize the donation of any parts of their body after death. If the deceased person has not authorized such donation, but also has not specifically prohibited it, then family members are permitted to give authorization. Around this same time (in 1968), an *ad hoc* committee at Harvard recommended a single neurological criterion—cessation of cardiopulmonary criterion (cessation of heart and lung activity) to mark the point of death. But medical technology had progressed to a point in which it was possible to sustain (via a respirator) heart and lung activity for days or even weeks after a patient had irreversibly lost brain function.

The Harvard committee simply wanted to establish a criterion—brain death—that physicians could use to determine death. Their original criteria—which included lack of responsiveness, no breathing or movement (when removed from a respirator), no reflexes, and a flat EEG (electroencephalogram)—were intended to determine when **all** brain activity had ended and thus when “whole brain” death had occurred. The idea of brain death was largely accepted, and subsequently was written into law. However, a person can suffer the loss of “higher” (cortical) brain function (thereby losing the ca-

capacity for awareness or self-consciousness) while still possessing brain-stem functions (such as spontaneous breathing, eye-opening, etc.). According to the original Harvard criteria, this loss of higher functions alone **did not** constitute death, since it was not **total** brain death. Thus, we were to think of death as the **irreversible and complete loss** of heart, lung, and brain function.

But in 1972, cyclosporine, the first powerful immunosuppressive drug, was discovered, which made it possible for patients to receive (and prosper after receiving) organs that were not exact matches. If the immune system’s rejection of potential donor organs could be overcome, the possibilities seemed endless. Therefore, in an effort to increase the supply of donated organs, many medical professionals began to call for an “update” in the criteria for determining death.

It has become increasingly clear in recent years that the thirst for transplantable organs is so strong that we are, in fact, redefining death in order to produce and procure the “needed” organs. In 1994, the Council on Ethical and Judicial Affairs of the American Medical Association (AMA) issued its updated opinion that it is “ethically permissible” to use “the anencephalic neonate” as an organ donor (see Council on Ethical and Judicial Affairs). This decision came in spite of current law, which recognizes anencephalic babies as living. (Anencephaly is a condition in which an infant is born with a fully functioning brain stem but without any cerebral hemispheres. Thus, it is unlikely that the baby is aware of his or her existence or surroundings; the child usually dies from complications within hours or days of delivery.) The baby is “brain alive,” but artificially designated as brain dead. Interestingly, the AMA’s decision contradicts the opinion of the American Academy of Pediatrics, which had reviewed this issue just two years earlier (see American Academy..., 1992). How many more definitions and/or laws will be changed in the future as the **demand** for usable organs continues to outnumber **supply**. As science descends down the slippery slope, we must remain vigilant in supporting organ donation only in those cases in which death has been determined by every criterion—including **complete** loss of brain function—rather than just by one or two criteria. God forbids intentional killing of the innocent (James 2:10-11); thus we must carefully determine, in light of the teachings found within God’s Word, whether a respirator is simply oxygenating a corpse, or sustaining a living human being. Then we must act accordingly. But we must not rely on the scientific community to make ethical decisions—since, as Paul Ramsey described, patients often no longer are viewed as people, but as “a useful precadaver” (1970, p. 208).

ORGANS FOR SALE

The bidding for a human kidney offered on the Internet auction site eBay hit \$5.7 million before the company put a stop to it (see AP Report, 1999). Internet bargain hunters drove up the price of one human kidney—advertised for sale on August 26, 1999 for \$25,000—to \$5.7 million before the on-line auctioneer put a stop to the macabre offer. The second kidney, posted the following Thursday afternoon with an asking price of \$4 million, did not receive any bids before it was pulled.

But why would individuals bid such exorbitant amounts for a kidney? The answer can be found in the old economic principle of supply and demand. As of July 15, 2003, there were 82,222 individuals in the United States waiting for organ transplants. However, only 24,076 transplants were performed in 2001 (see UNOS Information). As a result, one of the most important ethical issues involved in organ transplantation is: “Who gets the organ?” Should we do as the Chinese, and harvest organs from condemned prisoners? Or should we pass laws that remove organ donation from the status of an act of altruism, and place it instead in the realm of regulated policy?

The other alternative is to offer incentives for organ donation. On May 3, 1999, CNN reported a first-of-its-kind pilot program in Pennsylvania that paid organ donors \$300 toward their final funeral expenses (see Kahn). Some people see no difference in the selling of organs and the selling of blood, plasma, eggs, or semen. Proposals to pay for organs are not new, and many countries actively participate in the trade of money for organs. But the United States has enacted federal laws that strictly prohibit the sale or trade of organs. Consider what changes might occur if payment for organs were permitted: (1) it could exploit people who need money, but who normally would not donate; (2) it could motivate families to decide to discontinue treatment sooner; and (3) it would provide the rich an unfair advantage of obtaining organs.

ARE XENOGRAFTS THE ANSWER?

This lack of viable donor organs has led researchers to find alternative methods. Artificial organs (such as the Jarvic 7 or new AbioCor artificial hearts) leave the patient with a dismal prognosis; thus, researchers have been investigating the possibility of cross-species transplants (known as xenografts). Xenotransplantation has long been considered an answer to the critical shortage of available human donor organs. As patient waiting lists have become longer, the inadequate supply of donor organs has be-

come critical. Nationwide, at least one patient dies each day while waiting for a liver transplant, and this figure is increasing with each passing year.

Although early attempts at xenotransplantation date back as far as 1905, better understanding of the immune system, and subsequent new drugs, created a scientific climate favorable for several attempts in the 1960s and 1970s. In 1963 and 1964, physician Keith Reemtsma performed chimpanzee-to-human kidney transplants in twelve adults at Tulane University. The only real “success” story was one recipient who lived with the chimp kidney for nine months without evidence of rejection before dying of an infection. As word of this “success” leaked out, other surgeons made unsuccessful attempts to transplant chimpanzee hearts and kidneys into humans. Thomas Starzl even performed kidney transplants in six adults using baboon donors. The patients lived for 19 to 98 days after their transplants. The most famous xenotransplant occurred on October 26, 1984, in a tiny infant who became known simply as Baby Fae (the child’s middle name, which was used to protect the family’s privacy). In just three weeks, the little girl was known and loved by more people than practically any other infant in history. Hearts melted as she was shown listening to her mother’s voice over the telephone. With the transplanted heart of a baboon, she made medical history as the first newborn recipient of a cross-species heart transplant. However, just twenty short days later, Baby Fae died—most likely due to the blood-type incompatibility that existed between the donor baboon heart and the small infant.

Between 1963 and 1984, twenty-eight clinical procedures involving solid organs from animal donors were performed in the United States and South Africa. However, the results were less than optimal. The differences in outward appearances between animal organs and human organs are the least of the concerns. Animals have different blood types, antigens, and proteins that are recognized as foreign in humans. Those that have shown any glimmer of success have done so as the result of immunosuppressive drugs—putting the patients at greater risks for sickness and tumors in the future. Patients who accept donor organs from animals face a lifetime of expensive medication in order to be able to stave off rejection.

So what is the solution? There is indeed a critical need for donors. But since xenografts have shown very little promise, the only viable alternative appears to be increasing the available supply of donor organs. The key is education.

CONCLUSION

Can Christians support organ donation? Yes. It is one of the greatest acts of compassion and love for others. Even living donations (like donating a kidney) are acceptable. However, we must remain alert that we do not allow **living** individuals on respirators to become donors. We cannot justify having a bed-ridden patient turned to prevent bedsores, or having their lungs routinely suctioned to prevent pneumonia, and then turn around and treat that living body as “dead”—simply to harvest the organs needed to keep someone else alive. Simultaneously, since most transplants come from donors who have been declared neurologically dead, it is important that we fully understand the criteria the medical profession is using to define brain death. Only when a patient is determined to be **irreversibly and completely** brain dead should he or she be considered a candidate for organ donation. We need to understand that science will continue to press forward with what is known as the “technological imperative”—“if it can be done, then it **must** be done.” As Christians, we need to balance our lives and occasionally be prepared to say “no” to medical advances that are ethically questionable. We need to demonstrate to the world that we appreciate the medical advances, but they do not dictate in the realm of morals and/or ethics.

REFERENCES

- American Academy of Pediatrics (1992), “Infants with Anencephaly as Organ Sources: Ethical Considerations (RE9235),” Policy Statement, [On-line], URL: <http://www.aap.org/policy/04790.html>.
- AP Report (1999), “Ebay Stops Kidney Auction” [On-line], URL: <http://www.usatoday.com/life/cyber/tech/ctg022.htm>.
- Council on Ethical and Judicial Affairs (1995), “The Use of Anencephalic Neonates as Organ Donors,” *Journal of the American Medical Association*, 273:1614-18.
- Kahn, Jeffery P. (1999), “Organ Donation—We’ll Make It Worth Your While,” CNN Interactive [On-line], URL: <http://www.cnn.com/HEALTH/bioethics/9905/organ.donate/template.html>.
- Ramsey, Paul (1970), *The Patient As Person: Explorations in Medical Ethics* (New Haven, CT: Yale University Press).
- Red Cross (no date), “Statements from Various Religions,” [On-line], URL: <http://www.redcross.org/donate/tissue/relgstmt.html>.
- UNOS Information, “United Network for Organ Sharing,” [On-line], URL: <http://www.unos.org>.