INSTRUCTIONS FROM AUTHOR TO LIBRARY FOR THESES AND PRIZE ESSAYS

AUTHOR Jonathan A. Tabachnikoff

TITLE Halachic and Ethical Responses to the Question of Organ and Tissue Donation from Living Donors

TYPE OF THESIS: Ph.D. [ ] D.H.L. [ ] Rabbinic [✓]

Master's [ ] Prize Essay [ ]

1. May circulate [✓]) Not necessary
2. Is restricted [ ] for ___ years.) for Ph.D.) thesis

Note: The Library shall respect restrictions placed on theses or prize essays for a period of no more than ten years.

I understand that the Library may make a photocopy of my thesis for security purposes.

3. The Library may sell photocopies of my thesis. ✓ yes ___ no

Date 5/29/98

J Tabachnikoff Signature of Author

Digest

Thousands die in the United States each year due to a shortage of human organs and tissue for transplantation. The lack of available organs for transplant is sometimes overcome in individual cases by using a living human donor to provide the tissue or organs needed. The risk however, is not to be overlooked. There is a conflict between the Jewish values of saving a life and safeguarding one's own life. Becoming a living donor is potentially a life-saving act, while, at the same time, it is also potentially a life-threatening act.

Chapter 1. In this chapter I introduce the concept of living donors of tissue & organs. I introduce the practice using the stories of "Scott" and "Stan," each of whom faced decisions involving living donors of organs and tissue. Many of the basic issues are introduced in this chapter, through these two stories and other stories from the local and national media.

Chapter 2. In this chapter I provide an overview of the discovery & development of transplantation. From the discovery and introduction of the procedures through modifications and refinement of procedures, to the research being conducted presently in hope of finding a solution to the shortage of tissue and organs for tomorrow.

Chapter 3. Next I provide some examples of bioethical cases from around the world which can be used as indicators for bioethical decision making with regard to tissue and organ donation from living donors. The chapter begins with examples from the United States, and then continues with cases from elsewhere in the world; and it concludes with reportage from Israel.

Chapter 4. This chapter provides some of the basics of biomedical ethics used to determine the preferences in these situations. There are issues which impact the donor, those which are related to the recipient, and those which direct the physicians involved.

The well-being of each of the people involved should be considered, and each should be represented by a separate physician.

Chapter 5. Here I introduce the various halachic source material. From the Tanach, to the Talmud, and on through the later halachic material the laws develop. Then I show how the laws are applied by contemporary poskim and rabbis in the halachic [Orthodox] community.

Chapter 6. This is followed by a look at some non-Orthodox interpretations of these traditional rabbinic sources. I introduce some of the responsa of the Conservative Movement as well as the responsa of the Reform Movement. I provide related decisions which indicate the direction and spirit of the decision making in the two movements.

Chapter 7. In the final chapter I offer a synthesis of the bioethical materials & some of the logical conclusions from a halachic perspective. I look back at the two cases from chapter one; I also draw conclusions and provide guidance for practical use and application.

Appendix A. There are a series of stories of living donation from the point of view of the living donor. In them they share how the ordeal went for them and how the recipient faired as well.

Appendix B. This section provides a basic overview of the religious views of organ donation in the major religious denominations in this country.

Appendix C. This section offers select biblical quotations applicable to bioethics, and the prayers of two Jewish doctors, Asaph and Maimonides.

Appendix D. This section is a directory of some of the many available sources for current Jewish bioethics material.

Appendix E. This is a list of current Jewish bioethics sources on the internet.

Appendix F. This section provides select sources for current bioethics material.

Appendix G. This is a list of Internet sources for current bioethics material.

Bibliography. This all followed by a listing of works consulted and quoted.

Halachic And Ethical Responses To The Question Of Organ And Tissue Donation From Living Donors

Jonathan A. Tabachnikoff

Thesis submitted in partial fulfillment of
the requirements for Ordination

Hebrew Union College - Jewish Institute of Religion
1998 - 5758

Referee, Professor Barry Kogan

Referee, Professor Mark Washofsky

This work is dedicated to the memory of my friend Scott Chait, for whom I took on this project. Scott died on May 17, 1997, at the age of 23. While he did not live to see the completion of this thesis, I believe that he knew in his heart what it took me all of this time and effort to research and investigate.

In the sayings of the father we read, "Who is rich? He who rejoices in his portion."(Avot 4:1) Scott was one who rejoiced in his portion every single day. He lived his life to its fullest and eagerly took each day as it came. Scott set a remarkable example for us all. He will be missed but never forgotten.

זֵכֶר צַדִּיק לִבְרָכָה

May the memory of the righteous be for us a blessing.

Acknowledgments

Suffice it to say that I had not a clue what this undertaking would entail when first I entered into it, and that if I knew then what I know now I would have been filled with fear and trepidation. Certainly no effort of this magnitude can be accomplished without the support of many people, to whom I am truly indebted:

- **to Heidi, Seth, Allison, & other friends,** for looking in on me from time to time and for coming to my rescue when I was overwhelmed and downtrodden.
- **to Roanete Na'amani** for calling to check up on me and encourage me, and for reminding me that I am a very special, capable and loved individual, precisely when I needed to be reminded. Your gentle support and push was and is a godsend.
- **to Edward Goldman** for caring enough to push me and direct me when I needed it, especially when I did not want to be pushed, but needed it, and for limiting the length of my phone calls with Roanete.
- **to Annette & Stan Till** for being a constant reminder of all that is to come in the months ahead, and for calling to distract me at all the right times. I appreciated knowing that someone else has faith in me, even in moments when I do not.
- **to Rabbi Rob Morais,** whom I have made my rabbi and in whom I have found a friend, for calling diligently to encourage me and to empathize with me, and for listening to me when my emotions (frustrations) got the best of me.

- **to Paula & Barry Tabachnikoff, my parents.....** Sometimes there is nothing that can be said or done to make it better, and even the greatest efforts are of no use. Thank you for loving me unconditionally and for trying to help me even when I would not let you. Words cannot express my gratitude for all that you have always done for me, and for always being there for me.
- **to Professor Barry Kogan & Professor Mark Washofsky** for you guidance, encouragement, direction, proof reading, and tremendous patience with me, and for accommodating and working with me at my varying paces. Without your supervision and feedback this thesis would not have reached completion.
- **to Debbi Till**, my fiancée, my אשת-חיל, for listening to me and supporting me through all of my ups and downs throughout this process; for keeping my spirits up and distracting me periodically (for therapeutic reasons only, of course). And, without a doubt most importantly for saying "<u>YES</u>!"

To you and to the others not named who have helped me to complete this project, for all that you have done for me, תודה רבה.

And last, but certainly not least, to the קדוש ברוך הוא, without whose help none of this would be possible. For guiding me on this path, for sustaining me, and for helping me to reach this joyous occasion, מודה אני לפניך, I greatfully thank You.

Jonathan Tabachnikoff
Purim 5758

Halachic And Ethical Responses To The Question Of Organ And Tissue Donation From Living Donors

---

Chapter 1.

Living Donors Of Tissue & Organs

I. Introduction

As the scientific and medical communities develop new treatment methods, refine surgical techniques and improve mortality statistics, ever changing halachic questions arise. What was prohibited yesterday, might be permitted today, and may become obligatory tomorrow; what was science fiction yesterday is being tested today and could be a miracle cure tomorrow. As transplant success rates increase and graft survival averages grow longer, the risk factors decrease and the transplant procedures can change their halachic status in the eyes of the rabbis. The specialized knowledge of the best doctors, researchers and rabbis is combined to determine how a Jew today is to act according to the halachah.[1]

Medical ethics include the question of autonomy; who gets to decide which treatment will be tried and which treatment will not? What degree of risk may one assume, and what degree of risk is too much? When does one have the right to choose greater risk or to refuse life saving treatment? Who holds the ultimate power to make decisions when life lies in the balance? How is the halachah different when life does not lie in the balance? What rules are we to follow then?

Healthy living donors can provide organs and tissue for life saving treatments. Who determines who may and who may not donate what parts of their body? What does the halachah offer to guide our decision making process with regard to organ or tissue from living donors?

---

[1] Avraham Steinberg, MD, "What Is Jewish Medical Ethics," Jewish Medical Ethics, Volume I, Number 1, May 1988.

In researching halakhic rulings, Rabbi Moshe Tendler follows what he calls "the normal development" of rabbinic legal decisions; answers to today's technological questions may not be in the rabbis' words, but the solution may be suggested. By triangulating, applying more than one principle at a time, it is possible to deduce how the rabbis would rule on any given issue. The process usually begins with a question posed by a person facing a real life dilemma.[2]

The trickiest part is to decide what religious issues need to be addressed. Tendler finds that in playing out scenarios and role-playing, the possibilities various issues come to the surface and then can be addressed.

Citing recent hard-line decisions by ultra-Orthodox rabbis, Tendler says: "If you read their writings, it is obvious they never saw any scientific literature. It really is a sad commentary on the lack of intellectual integrity on the part of the people involved. Every researcher has available reputable, Torah-observant laboratory researchers to consult. Failure to do so is an unforgivable sin."[3]

---

[2] J.J. Goldberg, "Anatomy Of A Ruling," Jerusalem Report, July 18, 1991.

[3] Goldberg, "Anatomy Of A Ruling."

Among the greatest פוסקים, halachic decisors, of medical halachah were Rabbi Moshe Feinstein, זצ"ל,[4] and Rabbi Shlomo Zalman Auerbach, זצ"ל;[5] perhaps the greatest living authority today is Rabbi Eliezer Yehudah Waldenberg.[6] There are a handfull of scholars who are recognized experts in the field of Jewish Bioethics today; they include[7] Abraham S. Abraham, MD,[8] Rabbi Dr. J. David Bleich,[9] Rabbi Dr. David M. Feldman,[10]

---

[4] Rabbi Moshe Feinstein, זצ"ל: Born, 1895. Leading world authority in Jewish Law as it relates to practical issues, until his death in 1986. See biography in Rosner, Pioneers In Jewish Medical Ethics, pp. 99-126.

[5] Rabbi Shlomo Zalman Auerbach, זצ"ל: 1910 - 1995. Recognized as one of the greatest rabbinic decisors of the twentieth century. Became ראש ישיבה of Yeshiva Kol Torah in 1952, and held the position for life. Refused appointments to the Jerusalem and Israeli Supreme Rabbinical Court, and the Chief Rabbinate of Jerusalem and Israel. See biography in Rosner, Pioneers In Jewish Medical Ethics, pp. 99 - 126.

[6] Rabbi Eliezer Yehudah Waldenberg: Born, 1920. One of the most distinguished halachic authorities in the Supreme Rabbinical Court of Israel, in Jerusalem. His most significant work is his twenty two volume, to date, שו"ת ציץ אליעזר. See biography in Rosner, Pioneers In Jewish Medical Ethics, pp. 165 - 201; Also see for more information Kathy S. Schwartz, The Weight Of Knowledge: An Analysis Of The Work Of Rabbi Eliezer Waldenberg On The Social And Moral Responsibility Of The Physician To The Patient And Society, Unpublished Thesis, Cincinnati: HUC-JIR, 1988.

[7] Fred Rosner, Editor, Pioneers In Jewish Medical Ethics, Northvale: Jason Aronson Press, Inc., 1997, p. 203.

[8] Abraham S. Abraham, MD: Professor of Medicine at the Hebrew University - Hadassah Medical School and Director of the Department of Medicine B of the Sh'aare Zedek Medical Center in Jerusalem. Student of Rabbi Auerbach. Books devoted to medical halachah include, לב אברהם, two volumes, 1977; translated into English as, Medical Halachah For Everyone, 1980; נשמת אברהם, five volumes, 1984, 1986, 1988, 1992, 1995, covering all parts of the שלחן ערוך; Halachot For The Physician On The Sabbath And Festivals, 1995, in Hebrew and in English; Halachot Of The Patient And Attendant On The Sabbath, Festivals And Yom Kippur: A Pocket Book Of Practical Halachah, 1995; Comprehensive Guide To Medical Halachah, 1990. (Rosner, Pioneers In Jewish Medical Ethics, p. 204.)

[9] Rabbi Dr. J. David Bleich: ראש ישיבה, Professor of Talmud, and כולל להוראה ראש, Head of the Postgraduate Institute for Jurisprudence and Family Law, of the Rabbi Isaac Elchanan Theological Seminary of Yeshiva University; Professor of Law, Benjamin N. Cardozo School of Law; Tenzer Professor of Jewish Law and Ethics, Yeshiva University; and Rabbi of the Yorkville Synagogue in New York City. His books include, Contemporary Halachic Problems, four volumes; Providence In The Philosophy of Gersonides, Judaism And Healing, Time Of Death In Jewish Law, Birchat HaHammah. He edited With Perfect Faith: Readings In The Foundations Of Jewish Belief, and with

Rabbi Mordechai Halperin, MD,[11] Fred Rosner, MD,[12] Rabbi Avraham Steinberg, MD,[13] and Rabbi Dr. Moshe David Tendler.[14] Another recognized authority in Jewish Bioethics is former British Chief Rabbi Lord Immanuel Jakobovits.[15]

Fred Rosner, Jewish Bioethics. His work also appears in the Encyclopedia Of Bioethics. (Rosner, Pioneers In Jewish Medical Ethics, pp. 204-205.)

[10] Rabbi Dr. David M. Feldman: Author of Birth Control In Jewish Law: Marital Relations, Contraception, And Abortion, As Set Forth In The Classic Texts Of Jewish Law, The Jewish Family Relationship, Health And Medicine In The Jewish Tradition, and coeditor of the Compendium On Medical Ethics. He also wrote articles in the Encyclopedia Judaica and the Encyclopedia Of Bioethics. He holds degrees from Yeshiva University and the Jewish Theological Seminary, and is now Rabbi of the Jewish Center of Teaneck, New Jersey. He is a member of the Law Committee of the Rabbinical Assembly, and the advisory board of the Encyclopedia Of Bioethics. (Rosner, Pioneers In Jewish Medical Ethics, pp. 205-206.)

[11] Rabbi Mordechai Halperin, MD: Holds rabbinic ordination from Yeshivat Ponevez in B'nei Brak, an MD and M.B.Sc. from Hebrew University - Hadassah Medical School in Jerusalem. He is director of the Jerusalem Medical Center for Impotence and Infertility, and director of the Falk Schlesinger Institute for Medical - Halakhic Research at the Sha'are Zedek Medical Center in Jerusalem. Editor of Assia, a Hebrew quarterly journal on halachah and medicine. Founding member of the Israeli Society for Medical Ethics. Over one hundred books and articles to his credit. (Rosner, Pioneers In Jewish Medical Ethics, p. 206.)

[12] Fred Rosner, MD: Director of the Department of Medicine of the Queens Hospital Center in Jamaica, New York's Mount Sinai School of Medicine, where he serves as Professor of Medicine. Diplomat of the American Board of Internal Medicine; Fellow of the American College of Physicians. Visiting Professor of Medicine at his alma mater, Albert Einstein College of Medicine of Yeshiva University. He is a contributor to the Encyclopedia Judaica and the Encyclopedia Of Bioethics. An internationally known authority on medical ethics. Coeditor of the Compendium On Medical Ethics. Manuscript reviewer for sixteen professional medical journals, Published thirty six books and has written chapters by invitation in several dozen books. His bibliography contains over 800 listings, but most notably, Modern Medicine And Jewish Ethics, Ktav, 1991; Medicine And Jewish Law I and II, Aronson, 1990 and 1993; Biblical And Talmudic Medicine, reprinted, 1993. (Rosner, Pioneers In Jewish Medical Ethics, pp. 207-208.)

[13] Rabbi Avraham Steinberg, MD: Rabbinic ordination from Yeshivat Merkaz Harav Kook in Jerusalem. Medical degree from Hebrew University - Hadassah Medical School in Jerusalem. Specialties in neurology from Albert Einstein College of Medicine of Yeshiva University in New York. Practices at Sha'are Zedek Medical Center in Jerusalem, where he formerly directed the Falk Schlesinger Institute for Medical - Halachic Research. Director of the Center for Clinical Ethics and Professor of Medical Ethics at the Hebrew University - Hadassah Medical School. Editorial board of the Israel Journal Of Medical Sciences, Assia, and Jewish Medical Ethics. Student of Rabbi Auerbach. Author of fifteen books, fifteen chapters by invitation on other books, and hundreds of articles all on Jewish medical ethics. His most significant work is a six volume Encyclopedia Of Medical

While building on an ancient legal foundation for modern decisions, rabbis often disagree. "There is a broad tradition of Jewish medical ethics that goes back thousands of years," says Dr. David Meier, former director of Sha'are Zedek, an Orthodox hospital in Jerusalem.[16] Jewish medical ethics date back even farther than the 1,500-year-old responsa literature to the Torah.

Tens of thousands of responsa – authoritative rabbinic answers to halakhic queries – have been written through the centuries regarding medical ethics. Researchers at Bar Ilan University, near Tel-Aviv, oversee an ongoing project to computerize responsa, and are working on a specific data base for medical responsa. They estimate it would take three months to print out all of the medical related responsa.

Ethics And Law (1988-1997). [Currently being translated into English by Fred Rosner.] (Rosner, Pioneers In Jewish Medical Ethics, pp. 208-209.)

[14] Rabbi Dr. Moshe David Tendler: ראש ישיבה, and Professor of Talmudic Law, Rabbi Isaac Elchanan Theological Seminary, Chairman, Department of Biology, Yeshiva College, Rabbi Isaac and Bella Tendler Chair in Jewish Medical Ethics, at Yeshiva University and its Albert Einstein College of Medicine. Medical ethics consultant for many pharmaceutical firms, medical groups in the United States and around the world and Israel's Chief Rabbinate. He spent thirty six years consulting at Rabbi Moshe Feinstein's side. Tendler's contributions to Jewish medical ethics are in his responses to questions, his classes and lectures and in his many books and articles. Rabbi of the Community Synagogue of Monsey, New York. (Rosner, Pioneers In Jewish Medical Ethics, pp. 209-210.)

[15] Chief Rabbi Immanuel Jakobovits: Former British Chief Rabbi, 1966-1991 Born, 1921. Long considered a leading authority on Jewish medical ethics. Rosner, Pioneers In Jewish Medical Ethics, pp. 127 - 164.

[16] Felize Maranz, "Playing God," Jerusalem Report, July 18, 1991.

The goal of this thesis is to shed light on a life threatening issue affecting people all around the world today -- a critical shortage of solid organs and tissue for transplantation into human beings. I will focus on one possible means of decreasing the severity of this shortage, the use of organs and tissue from living donors. I will share many stories and reports of individual cases and their outcomes, in so far as they were made public. I will offer a brief history of transplantation. I will then introduce a number of potentially life saving uses for tissue and organs, as well as some of the risks and dangers involved in the surgical harvesting, removing, of the organ or tissue. I will identify many of the surrounding bioethical and legal questions and conflicts which arise as a result of these medical breakthroughs. I will cite examples of these situations and cases in the United States, in Israel and elsewhere in the world. I will introduce some of the alternative theories about how we might be able to address the shortage of organs and tissue for transplantation without having to resort to using living donors and suggestions being debated in the bioethics field in the medical world today, and discuss some of the experimentation that is going on in medical research laboratories around the world.

I will then switch from a secular medical and bioethical perspective, I will reexamine the bioethical issues surrounding living donors from a Jewish perspective. I will begin with an introduction to rabbinic principles and teachings which affect the thought and decision making processes in this field. I will look at biblical, talmudic, and later rabbinic material from as far back as the Garden of Eden story through to contemporary authorities and פוסקים. I will examine a great deal of halachic material from Orthodox perspectives. I will offer what little information is available from the Conservative movement, and I will catalog and summarize related material from Reform authorities.

I would like to first introduce some of the issues surrounding organ and tissue donation from living donors through actual cases.

CASE #1

Scott and his family have been friends of my family's for as long as I can remember, probably since Scott was born. Scott was born with Cystic Fibrosis (CF).[17] He had been in and out of hospitals since he was an infant and underwent countless operations and procedures in an attempt to extend his life and to make his breathing easier, improving his quality of life. When the idea of was introduced originally, Scott refused to consider the possibility of a lung transplant. Scott attended summer camp with other children with CF, and he had watched as almost all of them died. Some he watched suffer through experimental treatments and some underwent horribly painful transplants, and still others chose simply to let the disease take its course. Scott had daily therapy which involved a therapist literally pounding on his chest and back in an effort to loosen the fluid which was sticking to the interior walls of his lungs and making his breathing both difficult and painful. This treatment helped get Scott through the day, but it was not a cure; there is no cure yet for CF.

---

[17] Cystic Fibrosis: An inherited disease, usually recognized in infancy or early childhood, in which the glands especially those of the pancreas, lungs and intestines, become clogged with thick mucus. The sweat is typically salty, containing high levels of sodium chloride. Respiratory infections are common and can lead to death. Life expectancy has improved markedly and many victims now reach adulthood; also called fibrocystic disease of the pancreas; mucoviscidosis. (Charles F. Chapman, Medical Dictionary For The Non-Professional, Hauppauge, NY: Barron's, 1984, pp. 100-101.)

As Scott's health deteriorated after his twentieth birthday, he and his parents flew all over the country in search of a program willing to give Scott a lung transplant. The doctors reported that Scott had four out of the five "genetic factors" that the transplant programs considered made him a bad risk for lung transplantation. These factors in effect "blackballed" him from two of the leading transplant centers, Duke Medical Center and Children's Hospital in Pittsburgh. In a nut shell, he had "too many complications." Finally, he was put on the local waiting-list at Jackson Memorial Hospital, Miami, FL, where the first lung transplant in this program had been performed within the preceding year.

In the meantime, Scott's father had spoken with the doctors and proposed that he be tested to see if he was a match to donate a lobe to be transplanted from one of his lungs into his son's chest. The literature that they had seen explained that the organ was less likely to be rejected by Scott's body if it came from a close blood relative. The doctor had told them that this was the best chance that Scott had of finding a compatible lung, and that this organ came with the lowest risk of rejection. The father heard these odds and told the doctor that he was ready and willing to do this in order to save Scott's life.

Scott heard about his father's generous and altruistic offer and immediately became upset. Under no condition was Scott willing to accept his father's lobe. Scott would not allow his father to submit himself to the pain and the risk involved in this procedure.

Scott and his father were each insistent. Scott was twenty three years old, an age at which his parents can no longer tell the doctors what to do regarding Scott's health. In his condition, Scott could not legally be compelled to accept his father's offer.

During a hospital visit, Scott asked his rabbi and long time family friend [my father] to speak with his father. He requested that the rabbi talk his father out of risking his health and his life, and submitting himself to all of this pain! "After all, Rabbi," Scott argued, "doesn't Judaism teach us that one is not permitted to sacrifice or risk his life for the life of another?"

Scott's parents arrived while the rabbi was still visiting with Scott. When the rabbi got up to say good-bye, Scott's father walked with the rabbi out into the hall. He asked the rabbi and long time friend to please speak with Scott. He begged the rabbi to convince Scott that he must accept this offer of life! "After all, Rabbi, doesn't Judaism teach us the tremendous value of a single life? And that 'one who saves a single life, it is as if he has saved an entire world'? How-much-the-more-so, must a father do anything within his power to safeguard and protect the life of his son?"

Uncertain of his next move, the rabbi called upon me, a friend and soon-to-be colleague, at the Hebrew Union College-Jewish Institute of Religion, in Cincinnati, for a consultation. We are being asked to solve this medical dilemma from a Jewish perspective.

The doctors had already told Scott where he stood health-wise and what his choices were at this point. The surgery is considered "low risk" for Scott's father. The question is what specific laws or values can we use to teach the Jewish answers that stem from Torah and from our history? Scott and his father are stuck in a deadlock of wills; it is likely, since they have asked for the rabbi's involvement in this matter, that whatever recommendation the rabbi gives they will follow.

Together, we search our rabbinic libraries for whatever guidance and direction our tradition has to offer.[18]

CASE #2

Fifteen years ago a man named Robert came down with a mysterious and still unknown medical condition, which caused the organs in his body to deteriorate. He already had a pancreas transplant, and he was eventually confined to a wheel chair. He was on kidney dialysis for several years. It was anticipated at the time that he would require a lung transplant at some point in the future.

---

[18] Actual case from Rabbi Barry Tabachnikoff (Cincinnati,1968), Congregation Bet Breira, Miami, Florida; Currrent as of May 1, 1996.

After several years of dialysis Robert was discouraged. He felt confined by his dependence upon the dialysis machine. He was not handling the psychological aspect of his treatment well at all. Furthermore, his veins were collapsing, making the treatments both difficult and painful.

Robert reluctantly placed his name on the waiting-list to receive a kidney transplant but no match was found. Shortly after the first of the year, he withdrew himself from treatment. Robert threw himself a "good-bye party" for family and friends, if you will, a "pre-shiva-reception, hosted by the guest of honor."

With the removal of the painful dialysis process Robert's spirits rose and he enjoyed a better quality of life, for a few weeks. Following this period he manifested symptoms of uremia poisoning[19] which would, in all likelihood, ultimately cause his death if nothing else was done for him.

At this point, Robert's two brothers were both tested and one of them came up as an ideal match. Robert's brother, Stan, had twenty four of twenty four factors needed for a cross-match. The doctors described Stan as being Robert's "genetic twin." "You could just as well have been his twin brother" the doctor said.

After proving himself eligible to donate because he was both physically well and a genetic match, Stan volunteered to donate his "spare kidney." Robert, however, refused to allow Stan to put himself at risk. Thinking he could fool his brother, Stan asked the doctors to engage in a "white lie" and allow him to "anonymously" donate a kidney for his brother. The doctors refused this request.

---

[19] Uremia Poisoning: The presence of excessive amounts of urea and other nitrogen-containing wastes in the blood; it occurs in kidney failure, producing symptoms of nausea, vomiting, lethargy, and, if uncorrected, death. (Charles F. Chapman, Medical Dictionary For The Non-Professional, Hauppauge, NY: Barron's, 1984, p.408.)

The doctors spoke openly with Robert and explained the "low risk" to Stan and the high likelihood of success with a twenty four point match. Bob finally agreed to the procedure. The plan was that both brothers would be prepped for surgery. Bob would be opened first and evaluated to see if his general condition warranted further action. There was a fear that further deterioration of his lungs, liver and various other internal organs might not allow for the ultimate success of the procedure. Subsequently Stan would be operated on, and one of his kidneys harvested for transplant into Robert.

And that is how it played out. Stan's kidney was removed and four hours into the procedure Stan was closed and out of surgery. The donor kidney was transplanted and two hours later they closed on Robert. Both patients were doing well the next day. Stan was out of the hospital three days later. Two weeks after surgery Stan felt well enough to attend Shabbat services where he received a מי שברך and רפואה שלמה blessing. He told his rabbi [my father] that night that he felt sore but he was in good spirits. His discomfort was from the removal of a rib[20] which was part of the procedure.

Robert was still in the hospital, in stable condition, and probably would remain there for "a while," just as he had spent six months in the hospital after the pancreas transplant.[21]

---

[20] It is necessary to remove the twelfth rib from the donor in order to safely remove the kidney without damaging the organ.

[21] Actual case from Rabbi Barry Tabachnikoff (Cincinnati, 1968), Congregation Bet Breira, Miami, Florida; Current as of May 1, 1996.

QUESTIONS & ISSUES

Questions begin to arise and they continue to mount as long as these stories continue. Parents are willing to do almost anything to save their children, sometimes even sacrifice their own lives. Should a parent be allowed to voluntarily face mortal danger to save her child? For example, if a child was in need of a heart transplant. Should a parent who knows and understands the consequences and ramifications of her actions be allowed to donate her heart to save the life of her child?

With regard to living donors in particular the question which is central to this thesis is that of rights and responsibilities. What are the obligations of the patient? If patients are dying and are offered a cure, how can that patient say no? Are there circumstances under which a person is within his right to say no to treatment and to die? How much weight should the possibility of unforeseen tragedy or error have on the patient's decision to forego treatment and die? And what are the obligations of the donor? Must a family member donate, if physically able? Must there be some compelling reason to donate? Are family members within their rights to say no? What weight should the rest of the family and their opinions have on the decision making process? What about a spouse, a step-sibling, a best friend or to go to the other extreme, a total stranger? If one is willing to give to one person, must one also be willing to give to another? Are donors entitled to choose whether or not they will donate according to who the recipient is? If a person is a genetic match for organ donation, but is not in perfect health, is she allowed to take on the higher risk in her condition? How much risk may a person knowingly undertake?

What is the difference between the compulsion that a parent feels to save her child and the feeling one gets when he reads in the American Jewish Committee Journal that someone, somewhere is very sick, and will die unless someone can be found to help.[22]

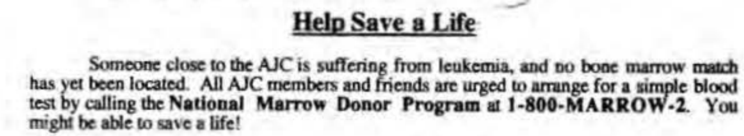
What about the stranger? If someone gets tested for example to donate bone marrow for a specific person, and then consequently comes up a match for someone else, does that person have a moral obligation to donate bone marrow? What about a parent who was tested to donate a lobe of a lung or a part of her or his liver for one of his or her own children, but is found later to be a match for someone else?

For the transplant waiting lists, how are the matches made? Who should get priority if more than one name on the list is a match? Should patients in more desperate condition get the organs even though they are more likely to reject the organs? Or should they go to the recipient with the highest likelihood of success? Should the amount of time one has been on the list play any role? In this instance we must take into account that the longer one is on the list the more likely it is for that person's health to have deteriorated and therefore the less likely it is that the organ will graft successfully.

It stands to reason that the younger, stronger patients with the greatest chance for success should get the few organs that become available, but what are we to do with the rest of the people waiting? Are we to just watch them wait and die?

---

[22] American Jewish Committee (AJC) Newsletter, November 1996.



Help Save a Life

Someone close to the AJC is suffering from leukemia, and no bone marrow match has yet been located. All AJC members and friends are urged to arrange for a simple blood test by calling the **National Marrow Donor Program at 1-800-MARROW-2**. You might be able to save a life!

Our sense of compassion dictates that the more critical patients get priority, although this leads to a higher death rate, and an increased rate of rejection. We must think carefully about all of these questions, among others, when dealing with this scarce and valuable resource. There are so few organs and so many sick people waiting. Someone must decide who shall live and who shall die; who shall get a kidney and who shall remain on dialysis, who shall get a heart or a lung, and who shall die waiting.

What should happen if a transplant is rejected? Should that person get a second organ when there aren't enough to go around? Then comes the painful question for many, should the cause of the illness play any role in the eligibility of the recipient? Should a person with a congenital disease or condition be on equal footing with one who destroyed his own heart muscle through repeated drug use, or the one who drank away his liver until cirrhosis[23] set in? Should people still be eligible for transplantation if they caused their own illness? What if they cause the newly transplanted organ to fail through the repeated use of drugs or alcohol? Should they be eligible to receive another allocation? Are they entitled to a second organ while others on the waiting list through no fault of their own will die waiting for a first kidney or liver? What are the costs of the operations? Who should pay these costs? What about the pain and suffering of the donor? What about the donor's time or lost wages?

---

[23] Cirrhosis: A chronic diseased condition of the liver in which fibrous tissue and nodules replace normal tissue, interfering with blood flow and normal functions of the organ, including gastrointestinal functions, hormone metabolism, and alcohol and drug detoxification. A chief cause of cirrhosis is chronic alcoholism, and hepatitis and other infections may also be responsible. Symptoms include nausea, flatulence, light-colored stools, and abdominal discomfort. Treatment is by rest, a protein-rich diet, and by abstinence from alcohol. If untreated liver and kidney failure and gastrointestinal hemorrhage can occur, leading to death. (Charles F. Chapman, Medical Dictionary For The Non-Professional, Hauppauge, NY: Barron's, 1984, pp. 83-84.)

These questions will continue to accumulate as the stories are told and as the technology continues to lunge ahead and the possibilities for treatment options multiply. The bioethical standards which the rabbis use as their guidelines do not change. While the application may differ as the technology improves and the outcome may change as new options are introduced, and religious principles behind the rulings are consistent. The level of benefit and degree of risk involved and the consequences of unforeseen complications change almost daily. With the rapid progress of modern technology, the procedures that we label "high risk" or "experimental" today may be the standard tomorrow; the prohibited degree of risk may forbid today what may be permitted or even obligatory tomorrow.

II. Living Donor Transplant Tales

Stories about situations like those of "Scott" or "Robert" appear in local newspapers and on the national network news. They are getting increasing amounts of attention as our technology reaches the point where the only thing that can get in the way of saving these lives is the lack of compatible tissue or organs. There are many variations that add to the bioethical dilemmas and to the complicated questions of what to do or what not to do in each case. The following stories are from local news stories in the Cincinnati area.

Nine year old Cameron Riley suffers from Myelodysplasia,[24] which can lead to Aplastic Anemia[25] or Leukemia.[26] The call went out to all blacks in the area to come in to one of the testing centers to have their blood typed and to add their names to the National Marrow Donor Registry. The best chance Cameron has of finding a matched donor is within his own ethnic community.

---

[24] Myelodysplasia: Premalignant condition of the bone marrow in which the marrow produces insufficient platelets and red and white blood cells, increasing susceptibility to bleeding and infection. It can lead to aplastic anemia or leukemia. The disease occurs rarely in children. Of about 50 cases occurring in United States children annually, one or two are treated at Children's Hospital Medical Center in Cincinnati. (Courtesy of Children's Hospital of Cincinnati.)

[25] Aplastic Anemia: Deficiency of the formed elements (e.g., red blood cells, white blood cells) of the blood due to a failure of the cell-producing machinery of the bone marrow, caused by a neoplasm or, most commonly, by exposure to toxic chemicals, radiation, or certain drugs. (Charles F. Chapman, Medical Dictionary For The Non-Professional, Hauppauge, NY: Barron's, 1984, p. 30.)

[26] Leukemia: One of the major types of cancer; a malignant neoplasm of blood-forming tissues, characterized by abnormalities of the bone marrow, spleen, lymph nodes, and liver and by rapid and uncontrolled proliferation of abnormal numbers and forms of leukocytes (white blood cells). (Charles F. Chapman, Medical Dictionary For The Non-Professional, Hauppauge, NY: Barron's, 1984, pp. 226-227.)

> As one of the registry's 106 donor sites nationwide, Hoxworth continues to battle the perception that marrow compatibility testing and donations are painful, dangerous procedures, Mark Schuller said. The stitchless, same-day surgery for donating typically results in soreness that subsides within ten days, he said.[27]

Fortunately for future patients, this type of public appeal for people to come in and to be tested and registered adds many names to the list for typing and compatibility searches, even if they are not able to find a match in time to save Cameron. In this case the number of Blacks in the area who came in to be tested was more than expected by the staff at the Hoxworth Blood Center.[28]

The same principle holds true for Jews as for blacks, Hispanics, Asians, Indians or any other ethnic group. The more common history the patient has with the people on the registry the better his chances of finding a match, and the fewer people from any particular ethnic or racial group, the worse the chances of finding anyone to donate compatible tissue or marrow.

But bone marrow is only the beginning. This next story tells of a situation in which a teen wanted to save his father's life.

> At age thirteen, the night his father collapsed from kidney failure while at Brandon's baseball game, Brandon decided to begin his campaign to be a donor. "I figure he would do it for me," Brandon said.
>
> Persuading his parents and the Christ Hospital transplant team took time, mainly because of Brandon's young age. "I refused him for three years," said Lonny, forty seven, "As I got worse, he got more insistent. And the worse I felt, the better his offer looked."

---

[27] "Marrow Donor Could Save Boy's Life," Cincinnati Enquirer, October 1995.

[28] See also "Hoxworth Has Record Sign-Up By Blacks As Marrow Donors," Cincinnati Enquirer, November 5, 1995.

> "When you have a solution right in front of you it is hard to ignore it," said Nancy, Brandon's mother. A young child donating a kidney to a parent is among the least common methods.

UNOS statistics - 1994

10,643	kidneys transplanted nationally
3,004	from living donors
295	children donated kidneys to parents (only two under the age of seventeen in 1994)
531	parents donated kidneys to children

> '[Brandon's parents] were required to appoint a legal guardian, who with authority extending only to the transplant issue, is looking out for the teen's interest,' said Elaine Berilla, Clinical Transplant Coordinator at Christ. 'The parents cannot sign a surgical consent form to remove a kidney because they have a vested interest', Berilla said. 'The guardian makes sure the child is not doing it under coercion, that he understands what is going on.'[29]

Here we see many of the issues which are raised in the bioethical debates over whether or not to allow the harvesting of tissue and organs from living donors. The donor's age and health, the competence and level of understanding necessary in order to establish informed consent, willingness to donate and the agreement of family members, patient, donor, doctors and transplant team.[30]

---

[29] "Teen To Give His Father A Kidney And A Future," Cincinnati Enquirer.

[30] See also "Miami Twp. Teen Sacrifices Kidney," Cincinnati Enquirer, February 28, 1996; "A Gift Of Love," Cincinnati Enquirer, March 22, 1996.

In this case the donor is related to the recipient, but what if the donor is not related? In order to be tissue-typed, to check for a match between Brandon and his father, Brandon's name went into the National Marrow Donor Program (NMDP) Registry along with all of his tissue and blood type information. What if the computer finds an alternate match? What if there is another person, in worse shape than Brandon's father, who needs that same donor marrow more desperately? Is Brandon obligated to donate without regard to the recipient? Is he allowed to give to both? Can an adult donate enough for multiple recipients? The doctors are more willing to make exceptions to the rules for members of the immediate family than for strangers.

> [Six months later,] the father is suffering with side effects from some of the anti-rejection medications he now has to take, but Brandon, eighteen, suffered no ill effects from the transplant surgery and returned to school in April [following the February 27 surgery].[31]

Brandon seems to prove the point that there is every reason to believe that this medical age is well equipped and prepared to perform these procedures and to transplant the healthy organ from the healthy donor into the ailing patient and end up with two healthy patients. While the operation and the entire process was not without its pain and suffering for the two men, Brandon and his father, Brandon suffered only slight discomfort and pain while the long term effect this operation has had on his father has been to extend his life, beyond what it would have been without the donated organ.

In this case, it is agreed that the correct decision was made and that the doctors and the transplant team who decided to allow this procedure were correct in their professional judgment. In this case it all worked out; the father went off of dialysis machines and the teen was back out on the track before the end of the semester.

---

[31] "Drug Reaction A Setback For Kidney Recipient," Cincinnati Enquirer.

But what if the operation had not gone smoothly? What if there had been complications? What risk is acceptable and what risk is too much to allow a child to undergo voluntarily even for a sibling or for a parent? Or a parent for a child? Or spouses for one another?[32]

It seems from these stories and the responses that they elicit, that the community is apt to help children and that parents are willing to do almost anything to help their own children. Children are also eager to be organ and tissue donors for their parents when needed; although, there is often a reluctance on the patient's part in many cases to allow another family member, especially the patient's child, to undergo any significant risk. Paradoxically, while they are protective of their children even when faced with mortal consequences, parents are sometimes willing to go to almost any length to save one of their children, including conceiving, creating a new potential donor.

> He's barely taller than a yardstick and weighs only twenty seven pounds, but he's a fighter.
>
> Jake Siniawski, five, is a kindergarten student who is learning to read and loves building space ships with leggos.
>
> But Jake's clock is ticking. Without a bone marrow transplant, he may not live through his teens...
>
> Jake is one of nine Greater Cincinnati children waiting for marrow transplants for various illnesses.[33]
>
> Transplants from matched sibling donors have a better than ninety percent success rate. Transplants from unrelated donors aren't as good. Success used to be twenty to thirty percent, but is climbing to fifty to sixty percent, Dr. Richard Harris, professor of pediatrics and director of the bone marrow transplant program at Children's Hospital, said.

---

[32] Although not related by blood to one another, there is significant data to demonstrate that the donation of organs, kidneys in particular, have been as successful as some sibling, parental and child donations. See related story below.

[33] See also "Nine Children In Area Await Transplants," Cincinnati Enquirer, Friday, March 29, 1996.

> Nationally about 400 children have received bone marrow transplants for Fanconi Anemia (FA).[34] The overall survival rate has been about sixty five percent, Dr. Harris said.
>
> The struggle to find a donor is so desperate that some parents give birth to additional children hoping to produce a match. [Carol Siniawski delivered the couple's second child two weeks before this article appeared in the Enquirer] Facing a twenty-five percent chance that a second child would also have FA, they decided to go ahead anyway.
>
> "You're playing poker with devil to have more children when you're (dealing) with a genetic disorder like this," Mrs. Siniawski said.
>
> The eight-pound two-ounce Justin, had short dark hair and a pug nose just like his brother's. He does not have FA. But he is also not a match for his brother's marrow.[35]

---

[34] Fanconi Anemia (FA): Anemia is a condition in which the hemoglobin content of the blood is below normal limits. It may be hereditary, congenital or acquired. Basically anemia results from a defect in the production of hemoglobin and its carrier, the red blood cells (e.g., production of abnormal hemoglobin, misshapen red blood cells, or inadequate levels of hemoglobin); increased destruction of red blood cells; or blood loss (e.g., in hemorrhage after injury or in excessive menstrual flow), the most common cause is a deficiency in iron, an element necessary for the formation of hemoglobin. Symptoms vary with the severity and cause of the anemia but may include fatigue, weakness, pallor, headache, dizziness, and anorexia. Treatment also depends on the cause and severity and may include an iron rich diet, iron supplements, blood transfusions, and the correction or elimination of any pathological conditions causing the anemia. There are several types of anemia, including [Fanconi Anemia] aplastic anemia, sickle-cell anemia, and thalassemia. (Charles F. Chapman, Medical Dictionary For The Non-Professional, Hauppauge, NY: Barron's, 1984, p. 23.)

[35] "5-Year-Old Boy's Family Hunts For Marrow Match," Cincinnati Enquirer, Friday, March 29, 1996.

This must be one of the most difficult choices in the world facing a parent. Knowing that there is a one-in-four chance that another child could produce a perfect matched donor for the sick child, but there is an equal chance that the next child will be born with the same congenital disease from which the sick child suffers. This is in poker terms, "double or nothing!" In parenting terms I can only imagine that this must be among the most painful and agonizing nightmares to live through. On the other hand, what choice is there? The odds of finding a match if there is not one already in the registry, which contains almost two and one half million tissue types, are not good.

"On average, one potential donor in 20,000 is matched to somebody needing marrow, Mark Schuller, Director of Marrow and Apheresis Recruitment at Hoxworth Blood Center."[36] The opposite logic would dictate that for every 20,000 volunteers who are tested and added to the registry, there will be one random match. But the odds of finding a specific match in any given appeal are slim to none. The benefit is a larger one in that the types will be added to the registry and will over time expand the number of possibilities for future matches significantly.

The use of celebrities and famous athletes for example have helped enormously in drawing attention to the pleas for people to get tested and to add their name and tissue type to the Registry.

---

[36] "Finding Donor Like Winning The Lottery," Cincinnati Enquirer, Friday, March 29, 1996.

> ...Appeal for a bone-marrow donor drew 70,000 responses but not one match... That unprecedented response, no doubt, will save the lives of other cancer patients in the future," hospital spokesman... said. Michelle [Carew, daughter of Rod Carew] received a transplant of fetal umbilical cord blood...[37] in an effort to rebuild her immune system. ...Two sisters and her parents were incompatible. Her father is of West Indian and Panamanian ancestry, and her mother has Russian Jewish roots.[38]

But even with all of the publicity and the enormous outpouring of sympathy reflected in the 70,000 who came in to be tested, Michelle Carew was not able to find a suitable donor, and she died waiting. Knowing that this is the outcome of not finding a match, how can a patient turn down a match if one is found, even if that one match is a one of the patient's children, and a minor?

> Family and friends, including her husband... and her sister... were tested, but none proved to be a match.
>
> Normally minors aren't permitted to donate organs, but Mrs. Chuma's doctor, James Schulak, felt Dawn [seventeen] was mature enough that an exception could be made.[39]

---

[37] Experimental procedure used as a last resort in the absence of a matching donor for a marrow transplant.

[38] "Leukemia Claims Michelle Carew," Associated Press, Orange, California, Cincinnati Enquirer, April 1996.

[39] "Girl's Gift To Mom: A Kidney," Associated Press, Cleveland, Ohio, Cincinnati Enquirer, December 1996.

Here, as with Brandon above,[40] the only known match was a minor, but was of sufficient size, weight, health and maturity to convince the doctor that this was a good risk for the beneficial outcome. Certainly at age seventeen, Brandon and Dawn were just on the border of no longer being a minor and were close enough to truly understand the consequences and the risks involved in their volunteering to serve as living donors. The issue at hand here is that of informed consent. At seventeen it is certainly possible to be informed and to consent to the procedure. But sometimes the age is not the factor that can impair one's ability to give informed consent; rather it is the relationship of the donor to the patient that can cloud judgment and prevent the donor from making any rational and well-thought-out decisions. Here, then, it becomes the doctors responsibility to guide the donor and the family in directions that will safeguard all of the members of the family and not allow family members to be so altruistic as to expose themselves to mortal risk. But what is a doctor to say when a mother says, 'Save my baby,... I don't care what must be done,... just do it!'...?

> A family's choice: 'This was desperate people doing desperate things to solve a desperate problem'... With estimates that Kit-Kat (their sixteen-month-old daughter) had forty eight hours to live, her parents and doctors decided to try a last-ditch option --- transplanting a piece of liver from her mother instead of waiting for a whole organ.
>
> Partial liver transplants from living donors are still new and rare --- the first two U.S. cases were done in 1989 and now about sixty are performed each year.
>
> The family faced a tough choice --- do nothing and face the certain death of their daughter or risk both mother and daughter in a chancy operation. To the Schotts there was no choice.

---

[40] "Teen To Give His Father A Kidney And A Future," Cincinnati Enquirer; "Miami Twp. Teen Sacrifices Kidney," Cincinnati Enquirer, February 28, 1996; "A Gift Of Love," Cincinnati Enquirer, March 22, 1996.

> "Children's Hospital has been transplanting sections of liver since July 1988. But until now, the portions came from cadavers. Using a living donor is a far more complex procedure," Dr. Ryckman said. And there is a risk to the family member who donates --- of 400 known cases worldwide, two donating relatives died in the process.
>
> While thankful that the surgery was a success, neither the Schotts nor the doctors recommend using living donors as a solution to America's ongoing shortage of donated organs.
>
> "This is not a solution to the organ shortage. This was desperate people doing desperate things to solve a desperate problem," Dr. Ryckman said.[41]

The risk here taken by this mother for her baby was tremendous. While no one can fault her for her altruistic motives nor for her willingness to save her child at any and all costs, financial or physical, there are other questions that must be taken into account. What would have happened if the tissue donation had gone bad and the mother had died, God forbid, on the operating table? How would the father cope alone with the two week old baby, the three year old and Kit-Kat, their sick sixteen-month-old? Did she have the right to put her life at risk in this way? Was this responsible of the doctor to allow it? What say should the father have in this matter, since the risk is physically to the mother, but will ultimately have a lasting impact also on the father should anything go wrong?

The donation of a section of liver tissue is not a comparable risk to the risk involved in donating of a spare kidney, which is common today and considered to be a minimal to low risk procedure. The transplantation of sections of livers is so new that even the use of cadaveric tissue is still experimental. The involvement of a living donor in the case of the liver, a vital organ for human survival, puts a second life at grave risk. If the procedure were no longer experimental the risk might be better justified, but at the present time it seems that the risk to the healthy, living donor is far greater than we see in any other type of organ or tissue donation thus far.

---

[41] "Mom Gives Girl Part Of Her Liver," Cincinnati Enquirer, January 8, 1997.

The spouse is an anomaly in this type of situation within a family. It would stand to reason that if a person were inclined to donate an organ or tissue for a parent, child or sibling in need of this life-saving gift, that he would also want to donate that same tissue or an organ to save the life of his spouse. Both parties involved are adults and their decisions can be informed and without conflict. The obvious drawback in this scenario is the fact that they are not in fact blood relatives. The two would still need to be tissue type tested to see if the necessary combinations were present to allow the organs to graft, and to prevent organ rejection. Assuming that the tissue types are a match, the procedure for the donation and transplantation of a kidney are fairly standard at this point in time.

> ...Linda, forty six, will donate a kidney to her husband [forty nine] to replace the failing one he has left... Her gift is part of a trend that is growing nationally. According to the United Network for Organ Sharing (UNOS) in Virginia, kidney donation between husbands and wives have increased nearly five-fold since 1988.
>
> Spouses became the fourth leading source of kidneys from living donors in 1995, when 225 transplants occurred. A study showed the three-year survival rate for donations between husbands and wives, at eighty five percent, is just below that of twins.
>
> "One reason there is an increase is an increase in the number of living donors is because we have the greatest-ever shortage of organs available for transplant," UNOS spokeswoman Mary Ann Wirtz said. Of 50,225 people waiting for organ transplants nationally, 34,612 need kidneys.
>
> Potential donors must undergo blood and tissue screening, X-rays of blood vessels, and tests to detect malignancies and other disorders.[42]

---

[42] Sheila McLaughlin, "Perfect Match: She Gave Her Heart, Now A Kidney," Cincinnati Enquirer, February 9, 1997.

Even with all of these safety precautions the risk is still not eliminated. Any time a patient undergoes anesthesia for a procedure, the anesthesia itself is a potential risk. Next comes the risk of the actual surgery, and the recovery and risk of infection. The extensive testing and X-rays we hope eliminates much of the risk of unforeseen genetic dysfunction later that may cause the remaining kidney to fail and could potentially be life-threatening to a person with only one kidney left.

Taking all of this into account, there are still a growing number among us who are ready, able, and willing to have the transplant teams cut into their bodies to remove the kidney or other necessary tissue in order to transplant it into their loved one who is in need of this tissue or organ in order to live. The numbers are significant, and the growth is surprisingly quick. The patient survival statistics and the organ graft statistics are phenomenally high.

Number Of Living-Donor Kidney Transplants In The United States, By Relationship

Spouse to spouse donations have increased fivefold since 1988.

	1988	1995
Full Sibling	951	1,379
Parent	518	696
Child	160	347
Spouse	40	225
Other Relative	35	164
Unrelated	24	137
Half Sibling	2	47
Identical Twin	0	9

United Network for Organ Sharing Scientific Registry.[43]

---

[43] Sheila McLaughlin, "Family Transplant Appears A Success," Cincinnati Enquirer, February 12, 1997.

Then there is always the anomaly that disproves any rule or surprises even the expert. Who would have believed that a person could have a third kidney? The third organ was cramping the woman's insides and needed to come out. The woman thought that with nearly 35,000 waiting for a singly healthy kidney, surely there would be a taker for this healthy, soon-to-be homeless organ. "I believe the Lord put it there for a reason," Mrs. Parry, a forty year-old nurse's aide with seven children said of her extra kidney."[44] In this case however, there is no added risk for Mrs. Perry in donating her extra kidney since the organ was going to be removed for her own well-being regardless of the availability of a recipient.

"One reason there is an increase in the number of living donors is because we have the greatest-ever shortage of organs available for transplant," said UNOS spokeswoman Mary Ann Wirtz. If there were enough cadaveric organs to go around, the questions surrounding living donors would all be moot. If there were not such a desperate need for the tissue and organs, there would not be so many willing to go to such great risks to save family, loved ones, friends and even total strangers. The saddest part of the whole picture is that the shortage is in large part due people's lack of foresight and discomfort with discussing death and all of the questions and issues that come along with it, including the person's wishes with regard to organ donation. The attempts are being made to educate and to inform people of the great need in society for tissue and organs, and people are being encouraged to make their wishes known to loved ones and to their next-of-kin. Among other places, these educational and motivational pieces appear frequently in the "Dear Abby" column, syndicated nationally.

---

[44] "Rare Generosity: Woman With 3 Kidneys A Donor For Stranger," Associated Press, Charleston, West Virginia, Cincinnati Enquirer, July 22, 1997.

> In 1995, a review of medical records of deceased patients revealed that there were approximately 13,000 to 15,000 potential organ donors. But only about 5,346 individuals actually donated, despite the fact that the American public overwhelmingly supports organ donation.
>
> -Tana Sherman, Partnership for Organ Donation[45]

Lest one think that the problem is an isolated one in big cities or just out in the middle of nowhere, there are sometimes statistics available about specific cities and metropolitan areas from local transplant centers.

"In Greater Cincinnati, more than 180 people are awaiting organ transplants, more than half for kidney, a fourth for liver and the rest for heart and kidney/pancreas [transplants]... about seventy five are added to the waiting list [nationally] every day."[46]

---

[45] Abby Van Buren, "Donor Card Isn't Enough For Transplant," Cincinnati Enquirer; See also Abby Van Buren, "Organ Gifts Are Way To Honor Son," Cincinnati Enquirer; Abby Van Buren, "Organ Donors Give Lasting Joy To Families," Cincinnati Enquirer, December 8, 1996; Abby Van Buren, "Organ Donation Often Overlooked," Cincinnati Enquirer; Abby Van Buren, "One Death Saves Four Lives," Cincinnati Enquirer; Abby Van Buren, "Parents Seek Bone Marrow For Daughter's Transplant," Cincinnati Enquirer; Abby Van Buren, "US Senator Sseeking More Organ Donors," Cincinnati Enquirer, October 6, 1996; Abby Van Buren, "Readers Respond To Carew Plea," Cincinnati Enquirer.

[46] "Ingenuity Helped Hospital Find Woman For Transplant," Cincinnati Enquirer.

The numbers are staggering. The lives lost by those who could have been helped if an organ had become available in time are lives that should not have ended as soon as they did. Each of these stories tells the tale of a person who is dying, but can be helped. The help comes from skilled practitioners, and from organ and tissue donors. If the numbers of cadaveric donors are insufficient to meet the tissue and organ needs of our communities, then a search for alternate sources of organs leads doctors to living human beings as possible donors, in some instances. There are efforts underway to create alternate sources and replacements for human tissue and organs, however, until there is a breakthrough on one of these alternatives, living donors of tissue and organs seems to be many people's best and only hope.[47]

---

[47] For Additional Living-Donor Tales, see Appendix A.

Chapter 2.

The Discovery & Development Of Transplantation

I. Medical History

One must first investigate the safety and dependability of the transplant process. In addition to the risk to the living donor, the probability of saving the life of the recipient and the statistical success rate play a significant role in the bioethical and the halachic decision making processes. It is relevant to survey the beginnings of transplantation technology and the progression as it became more sophisticated and increasingly successful with various tissues and organs.

Medical advances have made it possible to transplant numerous tissues and organs from one human being into another to improve and save lives. The first corneal transplant was performed in 1905, the first non-experimental human blood transfusion in 1918, the first kidney transplant in 1954, and the first heart transplant in 1967. Now current medical technology also makes possible the transplantation of skin, heart-lung combinations, lung, pancreas, liver, intestine, bone and bone marrow.[48]

In the early 1940's "Sir Peter Medawar (Oxford, England) described the rejection phenomenon,[49] for which he won the Nobel Prize. This discovery laid the foundation for the modern era of transplantation.[50]

---

[48] "Questions And Answers About Organ Donation," United States Department Of Health And Human Service, Public Health Service, Health Resources And Service Administration, p. 5.

[49] This is the commonly referred to problem with organs not grafting and not functioning within the new body. The matching of tissue and blood types between the donor and the recipient are in order to limit the number of recipients whose bodies reject and destroy the donated organ or tissue.

Successful lung transplants are an extremely recent achievement, succeeding first in 1963.[51]

The number of transplant's recorded by the United Network for Organ Sharing (UNOS) has more than doubled since 1985, due primarily to dramatic increases in the number of heart, liver and lung transplants. In 1994 there were 10,622 kidney, 3,650 liver, 2,340 heart, 102 pancreas, 746 kidney-pancreas, seventy one heart-lung and 720 lung transplants performed in the United States. However, the number of individuals awaiting transplants also continues to grow and many people, approximately 3,000 per year, die because donor organs are not available to them.

350,000 - 400,000 individuals receive tissue transplants each year in the United States. This includes all of the various types of tissue and organ transplantation. For specific types of donation it is also of some importance that almost ten percent of all individuals awaiting liver transplants are age five or younger, which means they otherwise have significant additional life expectancy. The survival rates are also of significant relevance for deciding the risk factors and choosing whether or not to donate tissue or an organ as a living donor. The one year survival rate for heart transplant recipients is eighty two percent. To better understand the tissue and organ shortage which necessitates the use of living donors, it is helpful to investigate all possible alternate sources of organs and tissue. One [cadaveric] donor can save or improve the lives of seven individuals awaiting organs and thirty five to fifty people awaiting tissue transplantation. Which just goes to show you, "you can make a miracle, [and] give the gift of life!"[52]

---

[50] "History Of Transplantation And Organ Donation," Hartford Transplantation Center, p. 3.

[51] Russel Scott, The Body As Property, Viking Press, 1981, pp. 19ff; Joseph Prouser, "'Chesed or Chiyuv?': The Obligation To Preserve Life And The Question Of Post-Mortem Organ Donation," Committee On Jewish Law And Standards, The Rabbinical Assembly, Teshuvah, December 1995, p. 7.

[52] "Questions And Answers About Organ Donation," p. 5.

TRANSPLANTATION FROM LIVING DONORS

Certain kinds of transplants can be done using living donors. For example, almost thirty percent of all kidney transplants are performed with living donors. Living donors are often related to the person needing the transplant and can live normal lives with just one healthy kidney. There are new methods of transplanting part of a living adult's liver into a child who needs a liver transplant. Part of a lung or pancreas from a living donor can also be transplanted.[53]

Advances in medical science have made transplant surgery increasingly successful. Transplantation is no longer considered experimental, but rather a desirable treatment option. The major problem consists in obtaining enough organs for the growing number of Americans who need them. As of June 1995, there were more than 40,000 Americans on the United Network for Organ Sharing (UNOS) waiting list,[54] waiting for organs to become available. Approximately 2,400 names are added to the waiting list each month. In contrast, in 1994, there were only 5,099 [cadaveric organ] donors in the United States. Even though most [cadaveric] donors contribute multiple organs, there still are not enough organs to meet the tremendous, desperate need and many people die waiting.[55]

---

[53] "Questions And Answers About Organ Donation," p. 7.

[54] The UNOS waiting list is the central clearing house for all cadaveric donation in the United States. The people on the waiting list are waiting for a whole or partial solid organ for transplantation. This does not generally include bone marrow, blood and blood products, skin, and other such tissue.

[55] "Questions And Answers About Organ Donation," p. 9.

Cadaveric organs are only usable if they are taken from individuals who have undergone "brain death," the complete cessation of brain functioning, and not cessation of cardio-pulmonary function.[56] All costs related to donation are paid for by the organ procurement program or transplant center.[57]

Related costs include the cost of harvesting, transporting and transplanting the organ or tissue, and the recovery of the recipient and donor, when living donor is used. There are no other costs involved, to receive or to induce one to gift an organ. There are some exceptions to this rule, including blood, ova, and sperm which are named exclusions in the National Organ Transplant Act[58] which prohibits the sale of human organs in the United States. Violators are subject to fines and imprisonment.[59]

---

[56] "Questions And Answers About Organ Donation," p. 11.

[57] "Questions And Answers About Organ Donation," p. 12.

Average Transplant Costs:

Heart	$148,000
Kidney	$51,000
Liver	$235,000
Pancreas	$70,000
Heart-Lung	$210,000

(Source: Battelle Institute/Seattle Research Center)

[58] Public Law 98-507.

[59] "Questions And Answers About Organ Donation," p. 13.

Sperm and Ova Donation

From the smallest to the largest, in physical size and potential risk to the donor, the smallest and least risky donation one can make is sperm from a male donor. Female donors can donate eggs, although there is some discomfort involved, as well as usually a superovulatory pre-donation drug, in order to maximize the efficiency of the donation. In both cases the donor is helping another couple in their attempt to have children. This cause is looked upon with great favor and compassion in bioethical and halachic circles, but we will not discuss it in any detail in this analysis because the donation in question is not a life saving donation. The same applies to cell donation for the purpose of cloning an individual's DNA and thus creating a living being, an organ, or making any other as yet undetermined or unrecognized use of such cells. The donation process is risk free and pain free, and, therefore, not a problem ethically or halachically, however, cloning human beings is problematic and being introduced in medical and halachic circles.

Blood Donation

The next least risky is donating blood, or blood products. Blood is made up of (mostly) plasma, (forty to forty five percent) red cells, white cells, and platelets. Plasma transports water and nutrients to the cells of the body; it also carries many waste products to the kidneys to be excreted. Among the proteins present in plasma are antibodies, which fight off infection, and clotting factors which control bleeding. Red blood cells carry oxygen from the lungs to the rest of the body. The red blood cells also bring an important waste product, carbon dioxide, back to the lungs to be exhaled. White blood cells [granulocytes] protect the body against infection and diseases. Platelets are necessary to stop bleeding.

An average adult has approximately thirty trillion red blood cells in the blood stream. For every 600 red cells there are about forty platelets and one white cell. Blood accounts for about seven percent of body weight. Men average about twelve pints, women about nine pints. It is possible to donate whole blood, or parts of the blood, through a filtration process.

Blood groups are distinctive molecules, called antigens, in the surface of red blood cells. A person's blood group antigens are determined by the genes that person inherits. Blood group antigens interact with proteins called antibodies. Each person belongs to one of four principal groups: O, the most common; A, the next most common; B or AB, which occur less frequently. This system is so important because people have strong antibodies in their plasma against ABO antigens. These antibodies occur naturally in everyone.

In 1900, Dr. Karl Landsteiner discovered three of the four major human blood groups (ABO). The AB blood group was discovered two years later by Dr. Landsteiner's associates, Drs. A. Decastello and A. Sturli. Dr. Landsteiner's work earned him a Nobel prize. These important findings made safe transfusion medicine possible.

The Rh factor, or the D antigen, was discovered in 1938 by Drs. Levine and Stetson. People whose red blood cells express the D antigen are called Rh-positive; Rh-negative red blood cells lack the D antigen but have other antigens in the Rh system. About eighty five percent of whites and higher percentages of non-white populations are Rh-positive.[60]

13 <u>Percentages Of Rh Factor, According To The ABO Blood Groups</u>

	A	B	AB	O
Rh+	34 percent	9 percent	4 percent	38 percent
Rh-	6 percent	2 percent	1 percent	6 percent

Type O blood is the universal donor type; people with all types of blood can take transfusions of type O blood. This makes type O blood a valuable type, because it is always in demand. This is the type used in trauma centers with accident victims, when there is not enough time to type the patient for matching blood. People with type A blood can take matching type A blood or type O. Likewise, people whose blood type is B can take type B or of course O. People with type AB are called the universal recipient, they can take types A, B, AB, or O blood. The discovery of many other blood group factors or antigens outside of the ABO and Rh systems since their discoveries has led to the identification of many rare blood types.

Blood that is donated is referred to in terms of units; One unit of blood is equal to 450 milliliters, which is about one pint. Approximately fourteen million units of blood are donated by eight million donors annually in the United States, and they are used by some four million patients.

Are there risks in giving blood? Almost none. It is not possible to acquire any disease through donating blood because new, disposable, sterilized equipment is used for each donation. A very small number of donors – less than one half of one percent – experience slight discomfort during or immediately after donating, but this sensation usually passes very quickly.

The first authentic transfusion occurred in England in 1665, when dogs were kept alive by transfusion of blood from other dogs. In 1795, an American, Dr. Philip Syng Physic, claimed to have performed the first human blood transfusion. A British obstetrician, Dr. James Blundell, performed ten transfusions[61] and four of his patients benefited from them. Blood transfusions remained risky until this century, when the ABO blood group system was discovered.[62]

---

[61] Between 1825 and 1830.

[62] "Questions And Answers About Blood And Blood Banking," American Association of Blood Banks, 8th Edition, Bethesda, Maryland: 1994.

There are people working on artificial blood products that could be used in place of human blood, eliminating the need for blood donation; however, blood substitutes currently under development remain highly experimental, and none are licensed for use in the United States. Research into various blood substitutes is continuing.[63]

The entire process of donating blood takes only about forty five minutes, door to door. There is information to read and there are forms to fill out; there is a health history interview, to determine if the donor is in any high risk group which would warrant any added precautions or might warrant the donor returning at a later date to donate. There is a mini-physical examination given to the donor, and a drop of blood is taken to count the red cell percentage. The donor's blood pressure, temperature and pulse are taken. The donor must be at least seventeen years of age,[64] one hundred pounds, must have eaten a good meal within four hours of donating, and must provide some form of positive identification.

If all of this testing and examining yield no negative results, the donor is seated in a donor chair. The donor can pick an arm, and the nurse or technician is ready to take the donation. All equipment and needles are all prepackaged, sterilized, used only once and then destroyed. It is absolutely impossible to contract AIDS from donating blood. The actual donation time averages ten minutes for just under a pint of blood. Adults average between ten and twelve pints in their body. Three small test tubes of blood will be taken from the donor, in addition to the unit donation, for typing and testing.

---

[63] "Questions And Answers About Blood And Blood Banking," ibid.

[64] There is no upper age limit.

The blood banks then usually request that the donor spend the next ten to fifteen minutes sitting and having a drink and or a snack, in order to rest with a medical staff member nearby, should the donor have any adverse reaction. Snacks and drinks are almost always provided, to help start the body replacing the fluids lost in the donation process. The average body replaces the lost fluid in roughly twenty four hours. The donor can then be eligible to donate again in eight weeks in most places. Some states require a slightly longer waiting period between donations.

Blood Products

The next level of donation is the donation of specific parts of blood, not whole blood, which is taken in its natural state and separated after the donor has gone. This is a more efficient way of collecting specific elements of the blood with fewer limitations on the amount that can be gathered, because the total fluid donation is less, and, therefore, is not as significant a shock or loss to the donor's system.

A special procedure called "apheresis" provides the means to donate just the platelets in your blood, and then return the remaining components back to your system. Blood comes out of one arm and into a separator, which spins out the platelets and the remainder of the blood is returned from the separator into the other arm.

Platelets aid in the clotting process to prevent or stop bleeding and help treat patients with cancer, leukemia and other diseases. One unit of whole blood contains 2 tablespoons of platelets and less than one teaspoon of white blood cells. Normally platelets from eight whole blood donations are required to achieve a single transfusion. The "apheresis" procedure will yield enough platelets in a single donation to achieve a transfusion without risk to the donor.

The entire process of donating platelets takes about two hours. The body can replenish its supply of platelets within seventy two hours usually. Thus, one can donate platelets as frequently as twice a week. However, one can not donate more than twenty four times a year, and must wait eight weeks following whole blood donation.[65]

Although scientists are working to develop alternatives to human blood, there is no substitute at this time when blood is needed. Blood is provided to surgery-patients and accident-victims in the old-fashioned way: It is donated.

It is, therefore, a very precious but perishable gift of life for the victim of the accident or disease who receives the transfusion. Knowing how important the blood supply is to accident victims and surgical-patients, it is troublesome that there has been a fourteen percent decline in [blood] donations over the past five years. It is astonishing and sad to learn that only 45,000 of the 1.2 million adults in the area donated [blood] last year. Before one tries to rationalize that the number is not too far from what it should be, we should bear in mind that that figure includes some 6,000 high school students![66]

Locally, Hoxworth Blood Center needs 300 pints a day to keep up with the needs of the twenty five hospitals in Ohio, Indiana and Kentucky that use donated blood and blood products.

It is safe, easy, fast, saves lives and could save your life; yet fewer than five percent of the healthy Americans eligible to donate actually donate each year. An average donor, statistically speaking, is a college-educated white male, thirty to fifty, married with an above average income. Women and minorities volunteer more often than they did in the past. The need is vast and the shortages that befall our community from time to time are literally life threatening.

---

[65] "Questions And Answers About Being A Platelet Donor," Hoxworth Blood Center: University of Cincinnati Medical Center, Revised 1/95, University Publications 7404.

[66] "A Few People You Should Meet..." 8343 UCPUBLICATIONS July 1996.

Every three seconds someone needs blood.

Every minute patients use twenty six units of blood or blood products.

Every day 40,000 units of blood are used throughout the country.

Every year twenty three million units of blood and blood components are transfused.[67]

The number of people who benefit from local blood donations is tremendous. While the number of people who benefit is most impressive, the number is at the same time terribly sad and frightening. These are all people whose lives are in danger, and who might die without this transfusion or transplant.

Bone Marrow Donation

An estimated 30,000 children and adults are diagnosed each year in the United States with Leukemia, Aplastic Anemia or other fatal blood diseases. For many the only hope for survival is a bone marrow transplant. Nearly seventy percent of these patients cannot find suitably matched marrow donors within their families. Many patients die before finding a matched donor. Most of the volunteers who have joined the National Marrow Donor Program (NMDP) Registry, ironically will never be matched by tissue type and therefore will never be asked to donate marrow.[68]

The NMDP was created in 1986 in order to "establish maintain and improve a system which provides transplants of bone marrow and other hematopoietic cells from volunteer unrelated donors for patients with Leukemia and other life-threatening blood diseases." The NMDP maintains the Registry of nearly two and one half million volunteer marrow donors.

---

[67] Sue MacDonald, "Banking On Blood," Cincinnati Enquirer, Wednesday, July 9, 1997.

[68] "The Living Gift of Life," National Marrow Donor Program (NMDP), July 1995.

The first successful [related] bone marrow transplant took place in 1968. It was a breakthrough in that it represented a new course for the treatment of Leukemia, Aplastic Anemia, and more than sixty other fatal diseases.

The first successful unrelated marrow transplant to treat leukemia was performed on a ten-year-old girl in 1979. NMDP today benefits from relationships with transplant hospitals and/or donor registries in more than nineteen countries in Europe, Asia, South America, the Middle East and Australia. The NMDP has facilitated 4,912 unrelated marrow transplants around the world; seventy five percent of the recipients were being treated for some form of leukemia.

At any given time 2000 active searches are being conducted within the NMDP Registry. The program is currently facilitating an average of ninety three transplants per month. Currently more than seventy percent of patients searching the NMDP Registry have at least one identical matched donor. The survival rate is currently in the forty to sixty percent range for diseases that would be fatal without marrow transplants.[69]

The long term survival rate for most of these patients without a marrow transplant was less than fifteen percent; with a transplant the rate averages thirty to forty percent, and can be as high as eighty percent depending on the patient's health before the transplant.

Tissue types are inherited and some tissue types are unique to certain racial or ethnic groups. A patient's best chance of finding a matched donor is within his or her own family, or then the next best chance at finding match is from someone else within the patients ethnic or racial group. Only one in four of those who need a marrow transplant will find a matched donor within their families.[70]

---

[69] "The National Marrow Donor Program," September 30, 1996.

[70] If one is ever matched with a patient in need and is unable to donate; a sibling may also be a matching donor because of the shared genetic background. This also means a match is most likely to come from someone of similar ethnic background. A majority of the volunteer donors are caucasian. There is a critical need for more minority donors to help the many minority patients searching the Registry.

Marrow is found in the cavities of the body's bones. It is a substance resembling blood that produces the body's blood components, including red blood cells, platelets and white blood cells, the main agents of the body's immune system.

Marrow transplants are used to treat patients whose marrow stops producing the correct amounts of various blood cells. You may never be called, even as a preliminary match... or you may be the only person who can provide life-saving marrow to that patient.

Once additional laboratory test have determined that a potential donor matches a patient, the volunteer must decide whether to donate. Before making a final commitment to donate, the potential donor attends a thorough information session with their NMDP Donor Center personnel. After the information session and a thorough examination, the potential donor decides whether to become a donor.

All medical expenses relating to the transplant are paid by the recipient or by the recipient's medical insurance.[71] Many employers even offer paid time off to donate marrow.

A volunteer may decide not to go ahead with the process. There are legitimate reasons for saying "no," including illness, the amount of time involved, the risk or the fear. Although a volunteer donor may decline at any stage in the process, once he or she signs the "Intent to Donate," the patient begins pre-transplant treatment and likely will die if the transplant process is not completed.[72]

---

[71] Expenses for cadaveric donation are sometimes assumed by the organ and tissue procurement organization.

[72] This point is stressed to eliminate uncertain donors early in the process. The hope is to prevent potential donors who are unsure of their decision from allowing a series of chemo-therapy treatments to begin for the recipient leading up to the transplant until the donor is comfortable and confident with the decision to donate. If the donor decides not to go through with the donation process after the recipient's chemo-therapy has been innitiated, without the matched bone marrow infusion the recipient will die.

Typically the donor enters the hospital on the day of the marrow donation. All donors receive general or regional[73] anesthesia for the procedure. The liquid marrow is removed from the rear of the pelvic bone using a special needle and syringe. The process generally lasts sixty minutes.

Less than five percent of the body's marrow is removed, an amount that the body naturally replaces within a few weeks. There is no change in the donor's immune system or production of blood cells during this time. Donors report feeling some discomfort in their lower back, similar to muscle pain, for several days following the donation.

As with any procedure involving anesthesia, there is a minimal amount of risk involved. The chances that a complication would arise from a marrow donation are very low.

Volunteer unrelated marrow donation is done anonymously through the NMDP. For at least the first year after the transplant, the donor and recipient may communicate only in anonymous writing through the NMDP system. If both the patient and donor wish to meet after that time, NMDP coordinators may assist in the process.

NMDP volunteers must be willing to consider donating marrow to any patient searching the registry. Volunteer donors must be between the ages of eighteen and sixty[74] and in good health.[75]

---

[73] Spinal or epidural anesthesia is usually used.

[74] The maximum donor age was raised from fifty five to sixty as of July 1995.

[75] "Chances Of A Lifetime: Questions And About Unrelated Marrow Transplants," National Marrow Donor Program, Minneapolis, Minnesota, October 1994.

Whether or not one decides to register with the NMDP, that decision will not affect one's relationship with the NMDP in any way, or result in any penalty or loss of benefits to which one would otherwise be entitled.[76] This is to say that one is not granted any higher status as a recipient if he should become sick and the NMDP finds that he is already a volunteer on their donor Registry. He would also in no way suffer any consequences in the event that he would have refused to donate when called upon to save the life of a matched patient. Should he then need the services of the NMDP he would get the same service and effort that any other patient would get.

Solid Organ Donation

From blood and marrow donation we progress to the larger and the more involved procedures of donation and harvesting of organs. The organs we refer to here are the kidney, and perhaps a lobe of a lung, a portion of a liver or tissue from a pancreas. As the technology grows, our ability to do more with the human body increases.

"Every day, nine people die while awaiting an organ transplant."[77] The sad truth is that these are deaths that do not need to be occurring now. We are living in a society that has the ability to save these people with the proper supplies. "Transplant technology has come far, but it could save more lives if only there were more donors."

The need for tissue matches, specifically in the case of a bone marrow transplant, and the connection which ethnicity plays in determining these factors means that the more similarity there is between two people's geographic and ethnic background, the greater the odd are that the two will match. The result of this factor is that due to demographics, and the number of volunteers who are listed on the Registry, "Caucasians have a seventy percent chance of finding a donor match, while African Americans have a thirty to forty percent chance."

---

[76] "Consent For Participation In The National Marrow Donor Program."

[77] "A Unique And Precious Gift," The Miami Herald, August 1996.

According to the National Kidney Foundation of Ohio: 41,000 people are on the waiting list for liver, kidney, heart-lung, pancreas, or bone-marrow transplants. 2,100 new names are added each month, and eight or nine die each day, waiting. Twenty five percent of all kidney transplants come from living donors.

Donors are screened for overall psychological and physical well-being as well as matching blood and tissue. Ability to pay is not a factor in becoming an organ recipient, and it is illegal to sell organs in the United states.

If you want to donate your organs upon your death, know that more than a private decision is required.[78] Family decisions prevail over donor cards or driver's license stickers, so be sure your family is well aware of your intentions.[79]

---

[78] While this issue may seem out of the sphere of relevance to the question of living-donation, it is relevant inasmuch as this is the primary cause for the shortage of organs, and could potentially take care of much of the shortage of organs we suffer with and eliminate a great deal of the need for living donors in the first place.

[79] "Need For Organ Donors Crucial," Cincinnati Enquirer.

II. United Network For Organ Sharing Statistics

The following information is taken from various documents put out by the United Network for Organs Sharing (UNOS). It is all relevant to the development of a clear sense of informed judgment about how great a risk is involved in becoming a living donor of tissue or organs.

Facts Everyone Should Know About Organ Donation and Transplantation

It is possible to transplant approximately twenty five different organs and tissues, including bone and cartilage, bone marrow, cornea, hearts, heart-lung, kidney, liver, lung and pancreas. Acceptable organ donors can range in age from new-borns to senior citizens.

Donors are people in good health who have died suddenly, possibly through accidents, and have been declared "brain dead." In this condition, brain function has permanently ceased, but the heart and lungs continue to function with the use of artificial supports.

Vital organs may be procured and transported hundreds of miles to a recipient center for transplantation. This is due, in part, to advances in medical technology and improved preservation techniques.

Organ	Preservation Time
Heart	4 - 6 hours
Liver	12 - 24 hours
kidney	48 - 72 hours
Heart-Lung	4 - 6 hours
Lung	4 - 6 hours

Every eighteen minutes a new name is added to the UNOS national transplant waiting list; and as of January 31, 1997, more than 1750 patients on the waiting list were seveteen years of age or younger. These are the victims who have the most to gain and the most to lose. With the available organs or tissue, these young people can expect to live a life within the range of average life expectancies; without this tissue or organ, they can expect to be missed very much, all too soon.

There are many people working to facilitate these organ and tissue transplantations, maintaining up to the minute data bases of need and availability, and location of patients and organ or tissue. There are sixty eight organ procurement organizations across the country which provide procurement services to the 278 transplant centers nationwide. These facilities are all linked to the UNOS network, and they in turn are linked to networks around the world, in an effort to maximize efficiency.

Federal rules require each state to have "Required Request" legislation, which requires hospitals to maintain a protocol for asking family members for permission to donate a deceased relative's organs and tissues.

An individual indicates his or her wish to be a donor by signing a Uniform Organ Donor Card. However, medical personnel still ask the next-of-kin for permission to donate. Therefore, it is vital that individuals who wish to be donors inform their next-of-kin about their decision so that their wishes may be honored.

As of April, 1995, 39,735 people were on the waiting list of the United Network for Organ Sharing(UNOS).[80] "Due directly to the shortage of willing donors, "thousands continue to die each year because of a shortage of donated organs and tissues."[81] "According to one estimate, seven people die each day for lack of available organs."[82]

"An estimated 20,000-25,000 brain deaths occur in the United States each year."[83] This select group of potential donors is further narrowed, as any particular organ transplant requires compatible tissue obtained from a "good genetic match," to minimize chances of natural organ rejection. Six pairs of genes are examined to determine matching human lymphocyte antigens.[84] The closer the match, the higher the prospects for a successful transplant.[85] Only an identical twin guarantees a perfect match. The smaller the pool of donors, the less likely it is to find a suitable cadaver organ for transplantation."[86]

---

[80] UNOS Newsletter, April 1995; UNOS manages the National Organ Procurement And Transplant Network (OPTN) on behalf of the United States Department Of Health And Human Services, Health Resources And Services Administration.

[81] "History Of Transplantation And Organ Donation," Hartford Transplant Center, p. 4.

[82] Susan Reed, "Toward Remedying The Organ Shortage," Technology Review, January 1994, p. 38; Prouser, "Chesed or Chiyuv?" p. 4.

[83] "30 Facts About Organ Donation And Transplantation," The National Kidney Foundation.

[84] These lymphocyte antigens are known as HLA proteins.

[85] Paul Terasaki, "Getting The Most Mileage From Donated Hearts," Annals of Thoracic Surgery, February 1990, Volume 49, Number 2, pp. 177-178; Verdi J. DiSesa, MD, et al, "HLA Histocompatibility Affects Cardiac Transplant Rejection And May Provide One Basis for Donor Allocation," ibid, pp. 220-224.

[86] Joseph Prouser, "'Chesed or Chiyuv?': The Obligation To Preserve Life And The Question Of Post-Mortem Organ Donation," Committee On Jewish Law And Standards, The Rabbinical Assembly, Teshuvah, December 1995, p. 6.

Facts About Transplantation In The United States[87]

The UNOS National Patient waiting list for organ transplant contains over 55,000 registrations.

On September 24, 1997 there were:

37,336	registrations for a kidney transplant.
9,021	registrations for a liver transplant.
363	registrations for a pancreas transplant.
78	registrations for a pancreas islet cell.
1,577	registrations for a kidney-pancreas transplant.
84	registrations for a intestine transplant.
3,813	registrations for a heart transplant.
226	registrations for a heart-lung transplant.
2,571	registrations for a lung transplant.
55,069	Total

UNOS policies allow patients to be listed with more than one transplant center (multiple-listings), and thus the number of registrations may be greater than the actual number of patients. As of September 24, 1997, there were 51,834 patients waiting for transplant in the United States.

The tremendous number of patients waiting for the few organs that become available means that in most cases these sick people are waiting to die, after struggling unsuccessfully to find any way to extend their lives until they can hopefully find a matched organ to transplant into them. These numbers are the latest available statistics from the Education and Public Relations Department at UNOS.

---

[87] Facts provided by "Education And Public Relations Department" at UNOS; also available from the UNOS website.

Number of Transplants Performed, January - December 1996*

850	kidney-pancreas transplant.
11,099	kidney transplants (3,389 from living donors).
172	pancreas transplants.
4,058	liver transplants.
2,342	heart transplants.
39	heart-lung transplants.
805	lung transplants.
45	intestine transplants.
19,410	Total

Number of Donors Recovered, 1996*

5,416	cadaveric
3,524	living
8,940	Total

* Based on UNOS Scientific Registry data as of April 23, 1997. Double kidney, double lung and heart lung transplants are counted as one transplant. Note: Data subject to change due to future data submission or correction.

The numbers of each kind of transplant that have been performed are an indicator of the safety and regularity with which the procedure is being performed. From the 1996 numbers we see that most of the various kinds of transplants are being performed with some regularity, and we can infer from this that there is a reasonable success rate if transplant centers continue to perform these procedures. This inference, however, can be verified with other statistics provided by UNOS.

As of March 7, 1997, UNOS membership included the following:

281	Transplant Centers*
3	Consortium Members
54	Independent Organ Procurement Organizations (OPOs)
56	Histocompatibility Laboratories
12	Voluntary Health Organizations
9	General Public Members
30	Medical/Scientific Organizations
445	Total

Note: Of the 281 transplant centers, 12 have in-house OPOs and 100 have in-house histocompatibility labs.

* This number has risen to 278 as of January 31, 1997, as sited earlier.

Currently, 281 medical institutions in the United States operate an organ transplant program. These transplant centers can be separated into organ specific programs that include the following:

254	Kidney Transplant Programs
120	Liver Transplant Programs
124	Pancreas Transplant Programs
18	Pancreas Islet Cell Transplant Programs
30	Intestine Transplant Programs
164	Heart Transplant Programs
98	Heart-Lung Transplant Programs
92	Lung Transplant Programs

The wide number of affiliate organizations and agencies increases the odds that there will be a facility able to procure and distribute tissue and organs to the neediest patients in the surrounding area, and thereby assuring that the organ is viable for transplant and not wasted. While there may be needier patients in other regions of the country (or world), the geographic proximity is a critical component that must be factored in when establishing which recipient is the best match.

Viability of organs dictates the amount of time that centers have to locate recipients, contact centers and physicians. In some cases this also limits the safe travel time an organ takes to reach the transplant center. Clearly, these limitations, which for the time being are insurmountable, put people living in rural areas, distant from the nearest transplant center at a significant disadvantage, and possibly in danger.[88] Getting the organ or tissue to a transplant center is only part of the struggle. Getting the patient to the center, prepared for surgery, and on the operating table is sometimes equally or more difficult.

---

[88] All of this could change in the near future if proposed changes to the system are put into practice; See Laura Meckler, Tim Bonefield, "Sickest First To Get New Livers," "Liver: Sickest To Get Transplant Priority," Associated Press, <u>Cincinnati Enquirer</u>, Friday, February 27, 1998.

United Network for Organ Sharing

Numbers of United States Transplants: 1988-March 1997
By Organ and donor type

Organ	Donor Type	1988	1989	1990	1991	1992
Kidney	Cadaveric	7231	7087	7783	7731	7697
	Living	1812	1902	2094	2393	2534
	Total	9043	8989	9877	10124	10231
Liver	Cadaveric	1713	2199	2676	2931	3031
	Living	0	2	14	22	33
	Total	1713	2201	2690	2953	3064
Pancreas	Cadaveric	244	413	526	530	554
	Living	5	4	2	1	3
	Total	249	417	528	531	557
Heart	Cadaveric	1669	1696	2096	2121	2170
	Living*	7	9	12	4	1
	Total	1676	1705	2108	2125	2171
Lung	Cadaveric	33	93	202	401	535
	Living	0	0	1	4	0
	Total	33	93	203	405	535
Heart-Lung	Cadaveric	74	67	52	51	48
	Living	0	0	0	0	0
	Total	74	67	52	51	48
Intestine	Cadaveric			5	12	22
	Living			0	0	0
	Total			5	12	22
Total	Cadaveric	10964	11555	13340	13777	14057
	Living	1824	1917	2123	2424	2571
	Total	12788	13472	15463	16201	16628

United Network for Organ Sharing

Numbers of United States Transplants: 1988-March 1997
By Organ and Donor Type

Organ	Donor Type	1993	1994	1995	1996	1997
Kidney	Cadaveric	8170	8383	8599	8561	2067
	Living	2850	3007	3247	3450	797
	Total	11020	11390	11846	12011	2864
Liver	Cadaveric	3404	3593	3878	4011	1003
	Living	36	60	44	50	11
	Total	3440	3653	3922	4061	1014
Pancreas	Cadaveric	772	840	1021	1012	247
	Living	2	2	6	10	1
	Total	774	842	1027	1022	248
Heart	Cadaveric	2295	2338	2360	2341	569
	Living*	2	3	0	1	0
	Total	2297	2341	2360	2342	569
Lung	Cadaveric	660	708	848	796	189
	Living	7	15	23	9	1
	Total	667	723	871	805	190
Heart-Lung	Cadaveric	60	70	69	39	12
	Living	0	0	0	0	0
	Total	60	70	69	39	12
Intestine	Cadaveric	34	23	44	43	17
	Living	0	0	1	2	1
	Total	34	23	45	45	18
Total	Cadaveric	15395	15955	16819	16803	4104
	Living	2897	3087	3321	3522	811
	Total	18292	19042	20140	20325	4915

In the table of "United States Donors By Organ and Donor Type," simultaneous kidney-pancreas transplants are counted twice, both in kidney transplants and in pancreas transplants. The number of simultaneous kidney-pancreas transplants performed in each year were: 1988-170, 1989-334, 1990-459, 1991-452, 1992-493, 1993-661, 1994-747, 1995-917, 1996-850.

* Living heart donors are people who are able to donate their (original) heart when they undergo a heart-lung transplant. This type of donation is known as a "domino" transplant.

Data on intestine transplants was not collected prior to April 1994. At that time, information was collected retrospectively for transplants performed from January 1990 through March 1994.

Note: Double-kidney, double-lung, and heart-lung transplants are counted as one transplant. All other multi-organ transplants are being included in the total for each individual organ transplanted.

All information in the above table is based on the UNOS Scientific Registry data, and is accurate and current as of July 28, 1997. All of the data is however subject to change based on future data submissions or corrections.

The data shown above shows us that the procedures are becoming increasingly successful and therefore the risk factor to the recipient is decreasing. If these patterns are any indication of the improved success rates and increased longevity of recipients, which they appear to be from these tables and others, and the statistics are similarly present for the lining-donors, this would be a very strong argument in support of the use of living donors. The above numbers, specifically the increase in the number of living donor organs transplanted, suggest that organs donated from living donors are equally or more likely to graft successfully to a new host, as compared to cadaveric organs. The data that follow support this assertion.

United Network for Organ Sharing
One-Year Graft and Patient Survival Rates
January 1988 through December 1995

Graft Survival by Organ and Year of Transplant

Organ	1988		1989		1990		1991	
	%	Std. Err.	%	Std. Err.	%	Std. Err.	%	Std. Err.
Cadaveric Kidney	75.7	0.5	78.4	0.5	79.5	0.5	83.4	0.4
Living Kidney	**88.7**	**0.7**	**90.8**	**0.7**	**91.2**	**0.6**	**92.9**	**0.5**
Liver	64.2	1.2	63.7	1.0	67.5	0.9	70.2	0.8
Pancreas	63.4	3.1	70.5	2.2	66.9	2.0	74.9	1.9
Intestine							91.7	8.0
Heart	80.8	1.0	81.4	0.9	82.8	0.8	80.5	0.9
Lung	42.4	8.6	58.1	5.1	70.9	3.2	67.1	2.3
Heart-Lung	51.4	5.8	54.9	6.1	67.3	6.5	62.1	6.9

Organ	1992		1993		1994		1995	
	%	Std. Err.	%	Std. Err.	%	Std. Err.	%	Std. Err.
Cadaveric Kidney	83.4	0.4	83.1	0.4	84.7	0.4	87.3	0.4
Living Kidney	**91.5**	**0.6**	**91.8**	**0.5**	**92.8**	**0.5**	**93.2**	**0.5**
Liver	72.2	0.8	73.5	0.8	75.8	0.7	76.3	0.7
Pancreas	78.6	1.7	75.3	1.6	79.7	1.4	79.3	1.4
Intestine	68.1	9.9	48.5	8.7	56.5	10.3	58.8	8.5
Heart	81.2	0.8	81.7	0.8	84.1	0.8	84.4	0.8
Lung	68.8	2.0	75.8	1.7	75.9	1.6	76.3	1.6
Heart-Lung	64.5	6.9	70.0	5.9	71.4	5.6	76.7	5.5

United Network for Organ Sharing
One-Year Graft and Patient Survival Rates
January 1988 through December 1995

Patient Survival by Organ and Year of Transplant

Organ	1988		1989		1990		1991	
	%	Std. Err.	%	Std. Err.	%	Std. Err.	%	Std. Err.
Cadaveric Kidney	92.2	0.3	92.5	0.3	92.7	0.3	94.6	0.3
Living Kidney	96.7	0.4	97.4	0.4	97.2	0.4	97.6	0.3
Liver	77.1	1.1	75.9	1.0	78.6	0.8	79.3	0.8
Pancreas	86.9	2.2	88.6	1.6	88.1	1.4	92.7	1.1
Intestine	ND	ND	ND	ND	ND	ND	91.7	8.0
Heart	82.1	0.9	82.3	0.9	83.6	0.8	81.7	0.8
Lung	47.0	8.9	59.3	5.2	73.9	3.1	70.2	2.3
Heart-Lung	52.4	5.8	54.9	6.1	67.3	6.5	62.1	6.9

Organ	1992		1993		1994		1995	
	%	Std. Err.	%	Std. Err.	%	Std. Err.	%	Std. Err.
Cadaveric Kidney	93.6	0.3	94.1	0.3	94.4	0.3	94.6	0.3
Living Kidney	97.2	0.3	97.0	0.3	97.9	0.3	97.7	0.3
Liver	81.0	0.7	81.6	0.7	84.0	0.6	83.9	0.7
Pancreas	91.6	1.2	91.6	1.0	91.6	1.0	94.5	0.8
Intestine	76.4	9.2	58.7	8.9	64.1	10.2	70.8	8.1
Heart	82.2	0.8	82.5	0.8	85.0	0.8	84.9	0.8
Lung	69.5	2.0	76.7	1.7	77.2	1.6	77.3	1.6
Heart-Lung	66.0	6.9	70.0	5.9	71.4	5.6	78.1	5.4

The survival rates were computed using the Kaplan-Meier method. "ND" denotes that not enough follow-up data was available to compute the survival rate. All of the statistics are based upon UNOS OPTN/Scientific Registry data, were accurate as of July 5, 1997. The above data are subject to change based on future data submissions or corrections.

United Network for Organ Sharing

Kaplan-Meier Graft and Patient Survival Rates at One, Two, Three and Four Years.

Based on all recorded United States Transplants Performed: October 1987-December 1995

Organ	Number of Transplants	Survival Type	1 Year Survival		2 Year Survival		3 Year Survival		4 Year Survival	
			%	Std. Err.	%	Std. Err.	%	Std. Err.	%	Std. Err.
Cadaveric Donor Kidney	64,346	Graft	81.9	0.2	76.5	0.2	71.1	0.2	66.0	0.2
		Patient	93.6	0.1	90.8	0.1	88.0	0.1	84.8	0.2
Living Donor Kidney	20,236	Graft	91.7	0.2	88.5	0.2	84.9	0.3	80.9	0.3
		Patient	97.3	0.1	96.0	0.1	94.5	0.2	92.8	0.2
Liver	23,957	Graft	71.2	0.3	66.6	0.3	63.3	0.3	60.6	0.4
		Patient	80.6	0.3	76.9	0.3	74.1	0.3	71.8	0.3
Intestine	141	Graft	61.1	4.3	44.6	4.6	32.5	4.8	ND	ND
		Patient	69.7	4.1	56.6	4.8	ND	ND	ND	ND
Pancreas	4,963	Graft	75.2	0.6	69.8	0.7	65.2	0.7	60.6	0.8
		Patient	91.3	0.4	88.2	0.5	85.3	0.6	82.7	0.7
Heart	17,138	Graft	82.1	0.3	77.8	0.3	73.9	0.4	70.0	0.4
		Patient	83.0	0.3	78.9	0.3	75.4	0.4	71.7	0.4
Lung	3,537	Graft	72.5	0.8	63.1	0.9	54.4	1.0	45.8	1.2
		Patient	74.0	0.8	65.3	0.9	57.4	1.0	48.8	1.2
Heart-Lung	500	Graft	64.0	2.2	54.9	2.3	50.8	2.4	45.4	2.6
		Patient	64.5	2.2	56.0	2.3	51.8	2.4	46.7	2.6

Survival rates for intestine transplants only includes transplants performed since January 1990.

Based on UNOS OPTN/Scientific Registry data as of July 5, 1997. Data subject to change based on future data submission or correction.

United Network for Organ Sharing

Number of United States Donors by Organ and Donor Type 1988-March 1997

By Year Donor Recovered

Organ	Donor Type	Year Donor Recovered				
		1988	1989	1990	1991	1992
Kidney	Cadaveric	3,880	3,817	4,308	4,269	4,277
	Living	1,813	1,900	2,095	2,391	2,535
	Total	5,693	5,717	6,403	6,660	6,812
Liver	Cadaveric	1,835	2,377	2,871	3,167	3,335
	Living	0	2	14	22	33
	Total	1,835	2,379	2,885	3,189	3,368
Pancreas	Cadaveric	577	799	951	1,066	1,004
	Living	5	4	2	1	3
	Total	582	803	953	1,067	1,007
Heart	Cadaveric	1,785	1,782	2,168	2,198	2,247
	Living	8	8	12	4	1
	Total	1,793	1,790	2,180	2,202	2,248
Lung	Cadaveric	130	191	275	395	527
	Living	0	0	1	4	0
	Total	130	191	276	399	527
Total	Cadaveric	4,084	4,019	4,512	4,528	4,521
	Living	1,826	1,914	2,124	2,422	2,572
	Total	5,910	5,933	6,636	6,950	7,093

Organ	**Donor Type**	**Year Donor Recovered**				
		1993	**1994**	**1995**	**1996**	**1997**
Kidney	Cadaveric	4,609	4,798	4,995	5,035	1,198
	Living	2,847	3,011	3,244	3,456	786
	Total	7,456	7,809	8,239	8,491	1,984
Liver	Cadaveric	3,764	4,095	4,324	4,452	1,097
	Living	36	60	44	52	11
	Total	3,800	4,155	4,368	4,504	1,108
Pancreas	Cadaveric	1,243	1,360	1,285	1,230	275
	Living	2	2	7	12	2
	Total	1,245	1,362	1,292	1,242	277
Heart	Cadaveric	2,442	2,526	2,500	2,391	593
	Living	2	3	0	1	0
	Total	2,444	2,529	2,500	2,392	593
Lung	Cadaveric	790	918	908	750	174
	Living	12	30	41	16	1
	Total	802	948	949	766	175
Total	Cadaveric	4,861	5,100	5,355	5,416	1,312
	Living	2,899	3,104	3,329	3,524	798
	Total	7,760	8,204	8,684	8,940	2,110

Living heart donors, as mentioned earlier, are recipients who are able to in turn donate their healthy heart which is removed when they become heart-lung transplant recipients. This is known as a "domino" transplant.

Based on UNOS OPTN data as of July 5, 1997. Data subject to change based on future data submissions or corrections.

III. Medical Frontiers

Bone marrow transplants are used to treat a variety of diseases, some which affect children, including Leukemia, Cancer, immune and genetic disorders, Fanconi's Anemia and Gaucher's disease. They are also being studied to treat Hodgkin's disease, Sickle Cell Anemia, Lung Cancer, Multiple Sclerosis, AIDS and other diseases. During the transplant process, a patient's own bone marrow must be killed with drugs and radiation and then must be replaced with healthy bone marrow tissue from a suitable donor. As with other kinds of transplants, donors and recipients must have genetically similar blood and marrow properties for the procedure to be a success, although, unlike with most other transplants, the match for bone marrow transplantation to succeed must be almost perfect.

Retrieving umbilical cord blood is a painless, risk-free, non-surgical procedure that doctors say is full of potential for fighting life-threatening diseases and making bone-marrow transplants less painful, more accessible to others and perhaps more successful.[89]

The use of umbilical cord blood in place of or in combination with bone marrow as a treatment is thought to be a better and more reliable source of graft tissue, since the young and undeveloped cells are not yet fully aware of their surroundings, it is thought that they might therefore be a more likely success for transplantation.

---

[89] Sue MacDonald, "Blood For The Future: Harvesting And Freezing Blood From Umbilical Cords May Improve Marrow-Transplant Success," Cincinnati Enquirer, October 10, 1995; "AIDS Battle Enters New Phase," Cincinnati Enquirer, December 15, 1995.

Other doctors, searching for alternatives to combat the severe shortage of donor organs to transplant are looking increasingly to the primates; but not all medical researchers agree that it is worth while to be testing primates and other non-human living donors. Thus a group of doctors has asked federal investigators to determine whether... transplantation of baboon bone marrow into [humans]... could endanger the public.[90] There is a concern that the marrow of a baboon may in fact contain diseases and viruses before unknown to the human species, and that these diseases would be devastating since they are previously unknown to our immune systems, it is safe to assume that we are perfectly free of any and all antibodies necessary to fight off the virus or disease.

On a less controversial front, there are researchers trying to determine how differently the immune systems of children and adults work and why.

"Kids immune systems react differently to both the donor organ and to the drugs used to keep them from rejecting it. And while their long term survival rate is nearly as high as adults, the early road to recovery can be rocky...

When children do well, they do very well. The longest living pediatric survivors include: kidney from a living donor transplanted in 1963, recipient age 14; kidney from a cadaveric donor transplanted in 1966, recipient age 14; liver transplanted in 1970, recipient age 3."

The youngest recipients of organs have been:

Heart	3 hours
Lung, single	1 day
Lung, double	10 years
Heart-Lung	4 months
Liver	1 day
Kidney, living donor	1 hour
Kidney, cadaveric donor	2 months

---

[90] "Baboon Risk Queried," Associated Press, Washington, Cincinnati Enquirer, December 1995.

The youngest kidney transplant patients have the poorest long-term survival rates of anyone except the very oldest. A new study is looking for ways to decrease the chances that children will reject their transplant organs."[91]

Survival Rates For Transplant Recipients[92]

	after three months	after three years
1-5 years	94.8%	86.5%
6-10 years	97.5%	94.4%
11-17 years	98.3%	94.8%
18-34 years	98.0%	92.4%
35-49 years	96.8%	88.1%
50-64 years	94.8%	82.0%
65 plus years	92.7%	73.5%

The number of people waiting for organ transplants reached a record 50,000-plus in 1996, a figure that tripled in the last seven years as organ donations have failed to keep pace. Those who do manage to get one of the scarce organs stand a better chance of surviving the surgery, though, with one-year survival rates soaring for liver, lung and heart-lung recipients.

"More transplant centers and transplant teams have more experience, and their experience in the medical regimen has gotten better," said Joel Newman, spokesman for the United Network for Organ Sharing (UNOS), which released its 1996 annual report Thursday...

---

[91] Elizabeth Neus, "Organ Recovery Hardest For Kids: Doctors Test Treatments For Transplant Rejection," Gannett News Service, Washington, Cincinnati Enquirer, April 21, 1996.

[92] The survival rate for transplant recipients refers to the percentage of patients who have undgone transplant surgery and, without regard for the success or failure of the grafted organ itself, were still living three months and three years after the procedure was performed. This is the best indicator of the projected life expectancy for those who choose to undergo transplantation.

About half of all patients waiting for livers get them, compared to one-third of those waiting for a heart and one-quarter of those waiting for kidneys," Newman said.[93]

The increased success rates and the reduced risk factor is definitely a positive shift for those who are trying to weigh the benefits against the risks of a transplant for the volunteer living-donor, related or unrelated.

"Offering more evidence of the benefits of umbilical cord blood as a transplant alternative to bone marrow, researchers said that even genetically mismatched cord blood worked well with young patients... The survival was better than one would have expected with matched, unrelated bone marrow, said Dr. Joanne Kurtzberg of Duke, who is the first to study cord blood transplants from donors who are not family members.

Kurtzberg found that the transplanted cord blood could differ by as many as three of six antigens without being rejected. The cord blood also causes less serious host-versus-graft disease, in which the donated immune cells begin attacking the patient."[94]

This is very good news for researchers, who are now trying to determine the cause of the successful mismatched graft and why it did not reject the foreign type. If doctors can figure out why the cord blood is not subject to the same host-versus-graft disease that we have come to expect in organ transplantation and even in bone marrow transfusions, the hope is that we will be able to translate that information and prevent the occurance and dangers of host-versus-graft disease, caused by mismatched organ and tissue transplants.

"Navy medical researchers said Tuesday they have found a way to prevent "mismatched" organs from being rejected by the recipients immune system.

---

[93] Elizabeth Neus, "Transplants: Waiting Lists Are Long, But Survival High," Associated Press, Washington, Cincinnati Enquirer, January 31, 1997.

[94] Katherine Webster, "Cord Blood Transplants Alternative To Marrow," Associated Press, Boston, Cincinnati Enquirer, July 20, 1997.

A four-week series of protein injections, made in monkeys, appears to teach the immune system not to reject transplant organs, yet does not disturb the body's defense against infection from bacteria and viruses..." The next step of human clinical trials are at least five years off.[95]

While research continues on varyious methods of transplantation on patients of different age groups, "researchers are exploring the idea of transplanting hearts, kidneys and other organs from pigs to people because human organs are in short supply. But some are concerned animal organs could introduce new and possibly dangerous viruses to the human population."[96]

The major concern here is that there are viruses and organisms that the animal kingdom may have come to terms with and may have found an antigen to cope with the ailment over time. An outbreak among the human population could take countless lives before we could even figure out the cause of the sickness.

The ability of bio-technologists to create "transgenetic" animals with human immunological characteristics, combined with the development of powerful anti-rejection drugs, has brought surgeons to the brink of a new era in which animal organs may routinely be implanted into humans

This new "transgenic" technology gives hope to many patients and doctors; many are reassured by sharply increasing success rates for human organ transplants, but frustrated by the serious shortage of donors. Proponents of the bio-technology argue that so-called xenotransplants of kidneys, livers, hearts, and even brain cells, could save the lives of tens of thousands of patients each year.

---

[95] Proceedings of the National Academy of Sciences; "Shots May Ease Organ Transplants," Gannet News Service, Associated Press, Washington, Cincinnati Enquirer, August 6, 1997.

[96] Malcolm Ritter, "Pig Viruses Pose Risk To Transplants: Animal Organs Considered For Lack Of Human Donors," Associated Press, New York, Cincinnati Enquirer, Thursday, October 16, 1997.

Tempering that promise, researchers still face a number of stumbling blocks, both scientific and ethical. And many scientists fear that transgenic organs will be a source of infectious diseases rivaling AIDS in their potential for devastation.

Britain's main bioethics advisory group recently approved the use of pig organs in humans. The United States Food and Drug Administration and the Centers for Disease Control and Prevention are also on the verge of issuing broad guidelines permitting xenotransplants."[97]

In February, 1997, the world watched as the scientific community announced the successful cloning of "Dolly" the sheep, and all of the possibilities that came along with her. What if we could clone an organ or just the specific tissue that was needed for transplant to save the patients life? "...Scientists believe the technique could be adapted to grow human organs such as hearts, kidneys, and livers in an embryonic sac living in an artificial womb.... People needing transplants could have organs 'grown to order,' cloned from their own cells," according to the Sunday London Times.

"The genetic composition of grown organs would exactly match those of the patient, eliminating the threat of rejection. It would also ease the shortage of organs for transplant."[98]

This is one of the many possible uses of scientific discoveries that come along with technological breakthroughs, such as the ability to clone a life form and create a second biologically identical life form, using only a cell with the DNA code for the organ or life form.

---

[97] Thomas H. Maugh II, "Genetics Brings Organ Transplants To New Era," Los Angeles Times, Cincinnati Enquirer.

[98] "Partial Embryo Created: Headless Humans Could Be Cloned For Organs," Associated Press, London, Cincinnati Enquirer, Sunday, October 19, 1997.

"Doctors hope that bone marrow transplants will enable multiple sclerosis (MS) patients to produce white blood cells that won't attack the [patient's own] nervous system... three patients have received bone marrow transplants at other research centers [since this procedure six months ago]."[99]

The research continues along all of the fields of medical and scientific sciences. The number of cures and treatments known to man increases daily. We are curing diseases at an incredible pace; although, even with all that we now know about the causes and cures for various diseases, there are still many illnesses and conditions that leave scientists puzzled. It is important that the research and experimentation continue in order to further the process, and bring about progress.[100]

---

[99] "Patient Dies 6 Months After Marrow Experiment" Associated Press, Indianapolis, Cincinnati Enquirer.

[100] For current medical information and bioethical material, contact Bioethics centers anywhere around the world, see appendix F; To access the most up to date journal entries on the world wide web accessible through a variety of sites, see Appendix G.

Chapter 3.

Bioethics News

I. Cases From The United States

The next perspective that warrants checking is the history of organ and tissue donation and transplantation, and in particular those involving living donors. As each new question is asked in the media and journal articles, there is a new direction to consider. It is of relevance to know about the contributing factors to this dire need for organs and tissue, and possible alternate methods of solving the disproportionately large demand and small supply of human tissue and organs for transplantation into human beings.

Journals report the progress of medical research closely; and ethicists follow the research, in as much as the methods and results often raise questions in the bioethics community. The most effective way to search out the cases related to living donors was by accessing digests of bioethical journals from the recent past, which I was able to do on the web site of the Eubios Ethics Institute, at <http://www.biol.tsukuba.ac.jp/~macer/index.html>. By reading through the abstracts, rather than allowing the computer to use a search engine to find all articles containing key words or phrases, I was able to broaden the scope of my search to include items which are related to the question of living donors but may not contain the words "living donors." Otherwise the computer search engine would have skipped over the article, assuming it to be irrelevant.

The following abstracts of relevance from the United States, Israel, and the rest of the world, are organized within these groups, by subgroupings, and chronologically. The progression through the bioethical issues in various parts of the world is interesting in its own right, and the various experiences elsewhere around the world also serve as indicators of how various scenarios under consideration in the United States might work clinically or practically.

Presumed Consent

The issues that impact our own thought processes and sense of ethics are the events closest to home, wherever home happens to be. We see by reactions from our society what is acceptable and from outcry within our community what is taboo. We are able to guage a spectrum of what is acceptable as well as the boundaries of that range. Therefore, I will begin with reports of current events from the United States.

The state legislature of Pennsylvania was discussing a proposed "presumed consent" law for organ donation. This type of a system allows hospitals and doctors to assume that a person would have consented to organ donation in cases where the next-of-kin are unavailable to give consent, or when there is no next-of-kin to authorize donation. "Presumed consent" would allow doctors access to more cadaver organs for transplant and reduce the imbalance of supply and demand for the limited organs available. The proposal is of great relevance because it could potentially eliminate much of the need for living donors. However, the proposed legislation is not expected to pass.

Discussion follows about various options and the possibility of implementing "opting in" or "opting out" schemes."[101] When there is an unidentified body, or someone dies without indicating wishes, without next-of-kin, do we assume that the person would have wanted to be an organ donor and help save a life, or do we continue to assume that the person would want to be left alone, as we do currently in the United States.

Xenotransplantation[102]

The next case of interest was a baboon liver transplant recipient. The patient became critically ill again after two months in the Pittsburgh hospital in reasonable condition. The recipient developed sepsis, but was thought not to be rejecting the liver.[103] The graft ultimately failed, and the patient died.

Time magazine commented on the failed baboon liver transplant in Pittsburgh the next month.[104] The recipient, who was infected with HIV, sadly died seventy one days after the transplant. It would be interesting to know to what extent the graft succeeded in the seventy one days, and if the transplant contributed to the death. As an HIV-infected patient, this provided an opportunity for added leniency with regard to the principles that govern research and experimentation involving human subjects.

---

[101] There was no follow up article listed in the abstracts determining the outcome of the debate or the vote. British Medical Journal 305 (1992), p. 1380.

[102] Xenotransplantation is the introduction of a xenograft, or heterograft, which is tissue from an individual of one species used as a temporary graft, as in cases of severe burn, on an individual of another species. A xenograft, heterograft is usually rapidly rejected but provides temporary cover for an injured area. (Charles F. Chapman, Medical Dictionary for the Non-professional, Hauppauge, New York: Barron's, 1984, p. 186.)

[103] Genetic Engineering News 12(9), 1992, p. 25.

[104] Time (July 13, 1992); Nature 359, p. 180.

Discussion has continued and even intensified regarding the case of the University of Pittsburgh baboon liver transplants.[105] Even if the use of these animal organs were to prove successful, the solution would not be as all encompassing as some might think. There are actually only several hundred baboons available in the United States. There is a concern that wild baboons may have harmful viruses; so using organs from non-laboratory bred animals is not a realistic solution. The risks involved would make the procedure impractical.

The topic of xenotransplantation is discussed further, due probably to the publicity of this case, in a conference review.[106] There are some who argue that the use of xenotransplants is a monumental catastrophe waiting to occur. However, while this is one of the options being investigated as a possible solution to the organ shortage, it is certainly not the only one.

In Los Angeles a pig liver transplant failed in a twenty six year old woman after two days.[107] The fact that the pig liver was at all successful is an indicator that there is potential for longer sustained organ function. With the successes, however, come questions and many unknown variables. One major concern in all xenotransplants is the possibility of introducing new strains if diseases and viruses into humans. Some estimate that this had the potential to wipe out large populations of people, making the AIDS epidemic look like a flu bug. The heart in this report had only been intended as an emergency measure.

---

[105] Hospital Ethics (November/December 1992), pp. 4-5; New Scientist (January 30, 1993), p. 3.

[106] Lancet 340, pp. 475-6.

[107] Yomiuri Shimbun (October 14, 1992), p. 30.

It may be more feasible to use pig organs, from transgenic pigs.[108] The idea behind this area of study is that by using genetic science scientists can engineer pigs and their organs to more closely resemble human organs and tissue. The more closely these organs resemble human organs, the better the chances that the body will accept the graft and not reject the transplant. This is not an all encompassing solution either. Even if this one issue were overcome, there are still many other factors that can contribute to organ rejection.

Recently, there was a review published of the development of transgenic animals at DNX (Corporation) to provide tissue for organ transplants.[109] The goal is to create a hybrid animal with tissue and blood similarities to human blood and tissue, in order to increase the chances of successful grafting for transplantation.

The FDA has a hand in many parts of our lives in this country and aims at preventing us from harming ourselves, or manufacturers from harming us, intentionally or not; now the FDA will regulate xenotransplants.[110] And once again there is more feedback and public opinion on the risks and benefits to living donors involved in the transplantation process.[111] If this is developed to the point of successful transplantation, the need for living donors would be irradicated, possibly completely.

---

[108] Transgenic (trans- meaning "across" or "through," -genic meaning "producing" or "forming.") These animals are genetically altered species created to have specific characteristics, in this case the animals are cross-bred to gain certain characteristics of human genetics, as well as to be virus free, to foster greater likelihood of successfully grafting part of the animal to a human. (Charles F. Chapman, Medical Dictionary for the Non-professional, Hauppauge, New York: Barron's, 1984.)

[109] Genetic Engineering News (October 15, 1993), pp. 1, 22.

[110] Science 268 (1995), pp. 349, 630-1.

[111] Journal Of Medical Ethics 21 (1995), pp. 91-6.

On Thursday, January 22, 1998, scientists called on the FDA to ban xenotransplants, and to study the dangers of virus and infection from the animal tissue. The FDA stopped all of the pig tests that they had been conducting, and will monitor recipients for the time being while the dangers are explored more thoroughly.[112]

Artificial Organs

Another option, and perhaps the best one to date, is the development of artificial organs. Researchers at MIT, Boston, report that they have grown liver, cartilage, bone, small intestine and other tissue by seeding polyester scaffolding with tissue-specific cells.[113] Over time, the biodegradable synthetic polymers used for the scaffold are replaced by natural scaffolding. They are currently using pigs to develop liver transplant strategies using the new tissue. They have also made a cartilage ear, using a mold. This would be the next best thing to using actual human organs. If they are able to "grow" organs from tissue that is specific to the patient awaiting the transplant, the hope is that the organ will be a match and that the body will recognize the matching tissue of the organ and not reject it.

With every new generation of research we get closer to knowing just what it is that makes our organs and systems work. As a result we are able to better able to mimic the components and to make them as perfect and as natural as they can possibly be. While we are still not able to duplicate a human organ from scratch, or even rebuild one that is damaged, we are making progress. Most recently, the use of micro-encapsulated hepatocytes in an artificial liver is reported[114]

---

[112] Lauren Neergaard, "Scientists: Ban Animal Transplants," Associated Press, Bethesda, Maryland, Cincinnati Enquirer, Thursday January 22, 1998.

[113] Genetic Engineering News 12(7), 1992, pp. 1, 28; Scientific American (August 1992), pp. 4-5.

[114] Artificial Organs 16 (1993), pp. 336-41.

Anti-Rejection Therapy

Organ rejection continues to be a serious problem in transplantation. There are various anti-rejection drugs being made, and recently a peptide, based on a segment of human HLA,[115] was successfully tested in rats.[116] This peptide is selective, only stopping Class I HLA immune responses. The advantage this drug has over the drugs that cause broad immunosuppression is that the general immune response to infectious agents can be maintained. It is being developed by a Californian company, Sang Stat.

More recently, the FDA approved Zenapax, a monoclonal antibody that blocks immune cells from attacking a new kidney during the first eight weeks, the riskiest period, after transplant.[117] Another new drug called Daclimuzab shuts down one type of immune cell to prevent rejection, but does not disable the entire immune system, in order to prevent infections or cancer.[118] The struggle to prevent rejection is the greatest struggle faced by the patient once an organ becomes available for transplant.

---

[115] HLA & MHC are methods of Tissue Typing to determine compatibility of tissues from a donor and a recipient prior to transplantation. (Charles F. Chapman, Medical Dictionary for the Non-Professional, Hauppauge, New York: Barron's, 1984.)

[116] Genetic Engineering News (September 15, 1992), pp. 1, 17; New Scientist (September 5, 1992), p. 15.

[117] "Transplant weapon," Associated Press, Washington, DC, Cincinnati Enquirer, Friday, December 12, 1997.

[118] New England Journal of Medicine, Thursday, January 15, 1998; "Drug Helps Recipient Of Kidney Transplants," Associated Press, Cincinnati Enquirer, Thursday, January 15, 1998.

HLA & MHC Genes

In order to improve the chances of a transplant organ grafting, doctors are trying all kinds of therapies, including trying to match the tissue, blood types, like one does with transfusions, and must do with bone marrow. Two papers arguing for and against matching MHC genes[119] in human organ transplants represent the organ transplant policy systems of America and Europe.[120] In Europe, HLA matching is considered the most important factor in matching donated organs and recipients. There is an ongoing debate as statistics come in as to whose system is more effective and who has greater success in overall transplantation grafting.

Allocation

All of this plays heavily into the decisions which determine how organs which become available will be allocated. The greatest possibility of success will maximize the utility of the supply, since there will be the least waste, and no need for more than one organ to go to any one patient. The difficulty is that there are other considerations, and in the end, at this point, there will be losers; some people will not get the organs or tissue the await, and they will die for lack of available tissue or organs to transplant.

---

[119] MHC (See HLA above.)

[120] Nature Genetics 5 (1993), pp. 210-3.

It would be difficult to forget the awful publicity and the huge controversy over the VIP treatment given to retired sports hero, Mickey Mantle, and his liver transplant. He only had to wait for a couple of days for a liver, and although the hospital claims it was for medical reasons, it is also likely it was because he was a VIP. There are clearly problems with the way VIP's are treated, but it is difficult to envisage a situation where some will not have better access. In this case, the speed and the public eye make the situation look too good to be true. It seems as if the whole thing had been staged and prearranged. While the doctors and transplant center staff involved claim that they were all acting by the book, following all of the rules, it appears to the public that this was too good to be true. If it is so easy to match, why are so many dying waiting each year? And if it is not so easy, why is Mantle not still waiting his turn like the other sick people on the list?

Equal Access & Discrimination

In a review of access to transplants, ability to pay was the most powerful predictor of access to transplants for persons with end-stage disease and who have major, disqualifying contra-indications to getting on the queue.[121] Money is shown to help candidates who do not otherwise qualify for an organ somehow find an organ and undergo transplantation. There is an inequity in this area between the wealthy and the poor.

---

[121] R.J. Ozminkowski, et al, "Access To Heart And Liver Transplantation In The Late 1980's," Medical Care 31 (1993), pp. 1027-42.

Racial disparity is shown to exist in kidney transplants in the United States.[122] Regardless of why the numbers add up the way they do, even if the truth is that the African American community is to blame, there is, nonetheless, the impression that the system is not equitable. The system for HLA matching means that if there are fewer African American donors there will necessarily be fewer black recipients; if there were more African American donors, that could change. The average waiting time, once on the waiting list for an organ, is about double for an African American what it is for others.

Among other criteria, the centers look at the ability of the patient to care for herself after the transplant and to monitor her own condition, to some extent. Social support and family can play a significant role. It was thought for a long time, and some still think today, that there are those who are unable to care for themselves and to responsibly monitor their own recovery, who, therefore, should not be eligible for the scarce resource of human organs, regardless of the fact that they are human beings in life-threatening positions.

For the first time ever, a thirty five year old woman with Down's syndrome was given a heart transplant, after initial rejection, in the United States.[123] It will be a significant case as experts and policy setting boards watch to see if she has the sophistication and concentration necessary to monitor herself through her recovery, to take her medications regularly, according to the prescribed schedule, to successfully foster the graft of the organ.

The newspaper quoted the Secretary of the United States Department of Health and Human Services, Donna Shalala, who said:

---

[122] Journal of the American Medical Association 270 (1993), pp. 1352-6.

[123] Nature Medicine 2 (1996), p. 264.

> We can assure Americans that organ allocation policies are equitable, and that those who need organ transplants will be treated according to medical need, no matter where in the country they may be hospitalized.[124]

While the department has not officially issued rules by which the transplant network must function, Shalala says that she will tell the network director that those in the most serious medical need are to go to the top of the list.[125]

Refusing Treatment

From those who struggle for their right to allocation of organs to the far opposite extreme, there are others who are unwilling to allow doctors to perform a transplant, and choose instead to allow the condition to progress, and they die. Despite the best doctors, the best treatments, and perfectly cooperative patients, the human body may not be willing to accept the transplanted organ, and rejects the graft completely. This is a serious, sometimes fatal, complication.

One journal reported about a fifteen year old boy in the United States who stopped taking illegal drugs and is, nonetheless, losing a second liver. With all of the pain and suffering associated with transplant procedures, one's stamina can run out, if forced to suffer through the ordeal more than once. In this case, the article reported that the boy would not be coerced to have another transplant.[126] In essence the boy would be allowed to refuse this life saving treatment, and would be allowed to die.

---

[124] Tim Bonfield, Laura Meckler, "Sickest First To Get New Livers, Order Halts Rule Of Donor Proximity," Associated Press, Cincinnati Enquirer, Friday, February 24, 1998.

[125] Tim Bonfield, Laura Meckler, "Sickest First To Get New Livers,...," ibid.

[126] British Medical Journal 308 (1994), pp. 1660-1.

Conception Of A Donor

While some are beyond their limit and stop fighting, there are others who fight on and go to extremes they did not know they could achieve. There is a report of yet another case of a baby being conceived in order to provide bone marrow to a sick sibling. In this case, the stem cells needed for the transplant or transfusion could come from the umbilical cord.[127] The use of umbilical cord blood, rich in stem cells and other beneficial qualities, is a promising area on the horizon of medical research and transplant experimentation. Every new born has an umbilical cord; now we can put that which we once considered to be disposable to good use.

Tens of thousands with diseases like Hodgkin's lymphoma, sickle cell anemia, and leukemia can now be treated with stem cells from umbilical cord blood. The process of collecting the tissue is painless; however, it must be collected immediately following birth. It can be banked privately for families, or donated through the International Cord Blood Foundation for use by patients who desperately require a matching transplant.[128]

The use of cord blood is a relatively new therapy, which became available in the late 1980's. Like bone marrow, it is rich in stem cells - the building blocks of the blood and immune system.

There is no cost for public donation, however, the application and testing process must be done at least two months before the delivery. Anyone with a family member who already has a condition for which stem cells may be a treatment option, can store cord blood at no cost to through the Cord Blood Registry's Designated Transplant Program.[129]

---

[127] USA Today (November 23, 1994), p. 7.

[128] To learn more about cord blood banking call the Cord Blood Registry toll free at (888) 267-3256 or go to their web site at <www.cordblood.com>.

[129] Abby Van Buren, "Umbilical Cord Blood Important For Transplants," Cincinnati Enquirer, Sunday, September 28, 1997.

A local seven-month-old girl suffering from leukemia may have a chance for recovery if she can survive until an expected sibling is born in the spring. The parents of Michaela Anne Foisy, of Sheffield Township, conceived the baby, who is expected in May, in the hope of providing bone marrow for their daughter.[130] There is a one-in-four chance of a sibling matching.

A family in San Bernadino, California, had a baby girl who provided a successful bone marrow match for their teen-aged daughter in 1991; and earlier this year, marrow from a newborn sibling was transplanted into five-year-old Christy Schwartz, of the Cleveland suburb of Solon.

Black Market Organs

While some are making the news for their lifesaving research and discoveries, there are still others who appear in the news for their willingness to do what many might consider unthinkable, in order to take advantage of the desperation of people on the waiting list and to make a few dollars. Two undertakers were sentenced to four years in prison for removing organs from dead bodies and selling them to organ banks. It is odd to consider why someone who could potentially save a life would not do so even in this hour of grief, but at the same time, that certainly does not give anyone the right to violate the wishes of the deceased or of the surviving family members. If the family or even the diseased had wanted to be an organ donor, and ceased all brain function in the hospital, then there would be the question of whether it is ethical to leave the brain dead body on life support for the sole purpose of ventilation of potential organs for donation.[131]

---

[130] "Expected Baby May Save Life Of Sister: Parents Hope For Bone Marrow Match," Associated Press, Sheffield, Ohio, Cincinnati Enquirer.

[131] British Medical Journal 310 (1995), pp. 714-8.

Odds Increase With Practice

Bioethicists look at the numbers for transplantation in the United States and observe that seventy-seven percent of people who received a lung transplant in 1993 were still alive one year later, up from forty-seven percent in 1988. Kidney transplants from living donors had the highest one-year survival rate at ninety-seven percent. Statistics like these are relevant when making decisions like "Scott" and "Robert" faced.[132] From the increases, they numbers appear to be good news; however, there are also significantly longer waiting lists as transplant operations become more routine. In 1988 there were 27,644 people waiting for an organ, but by 1994 the figure had more than doubled to 56,066.

Non-Related Living Donors

It is certainly not uncommon to see an editorial on non-related living donor transplantation.[133] This is a sensitive subject for those whose lives have been personally touched by the organ shortages. Others argue against the risk to healthy people, hoping that a solution to the shortage of organs and tissue will be just around the corner. Certainly, if there are other ways of filling the need for organs and tissue without putting healthy people at risk, no matter how small that risk may be, it is certainly worth examining.

---

[132] See Chapter 1.

[133] Lancet 342 (1993), pp. 1061-2.

Living Kidney Donors

Living donors of kidneys are increasingly popular as the number who need kidneys grows swiftly and the supply grows, but significantly more slowly.[134] The success rate is high; but is there enough of a demand to warrant the risk imposed upon an otherwise healthy individual?

There are increasing numbers donating a kidney to a spouse; and the survival rate is significantly higher than the rate for cadaveric kidneys according to the most recent UNOS Renal Transplant Registry data:

85% survival from 368 spouses
81% survival from 129 living unrelated donors
82% survival from 3368 parents
70% survival from 43,341 cadaveric kidneys.[135]

Preoperative transfusions, before the transplant, raised the three year spousal donated graft survival rate from eighty one percent to ninety percent. Spouses are an important source of living-donor kidney grafts because, despite poor HLA matching, the graft-survival rate is similar to that of parental-donor kidneys. The high survival rate is attributed to the uniformly healthy kidneys donated from the healthy living donors.

---

[134] V.L. Hannig, et al, "Utilization And Evaluation Of Living-Related Donors For Patients With Adult Polycystic Kidney Disease," American Journal Medical Genetics 44, pp. 409-12.

[135] Paul I. Terasaki, J. Michael Cecka, David W. Gjertson, Steven Takemoto, "High Survival Rates Of Kidney Transplants From Spousal And Living Unrelated Donors," New England Journal Of Medicine, Volume 333, Number 6, August 10, 1995.

Living donation of a kidney has become a routine and efficient treatment. In the United States twenty seven percent of all transplanted kidneys come from living-related donors. The majority are from relatives, mostly HLA identical twins. Emotional relatives, who are not blood related, account for only four percent of the transplants in 1994. Policies in this country for living-related donors apply also to spouses; while spousal donations are prohibited in some places, like France.[136]

Minors & Informed Consent

The Medical Ethics Advisor has an editorial[137] which asks whether minors who donate an organ to a sibling really have a choice? The question here is, who is looking out for this potential-donor child? If the parent is also the parent of the sick child, the parent has a vested interest in seeing the sick child get better, even at the cost of some risk, pain and suffering to the healthy child. A parent would surely undertake risk, pain and suffering for the child, but does that give the parent the right to impose that upon the healthy child?

Many support the appointment of a guardian to represent the child's interests in the case, since parents are clearly biased and in a state of panic over the desperate situation of their ill child. It may not often be the case that the healthy child is being put in a dangerous situation which would warrant the guardian fighting against the parents for the well-being and best interest of the well child, but it is still the child's right to have an unbiased advocate, as well as an unbiased doctor, looking out for his best interest and well-being exclusively.

---

[136] Jean-Paul Soulillou, MD, "Kidney Transplantation From Spousal Donors," Editorial, New England Journal of Medicine, Volume 333, Number 6, August 10, 1995.

[137] Medical Ethics Advisor 8, pp. 97-100.

Minor Donors

When the issue of living donors is debated and discussed, specifically cases involving minor donors, the major issue is the benefit to the donor, the risk of donating, and the long-term effect the organ or tissue donation will have on the donor. This is weighed against the benefits the recipient gains; the effect is measured on the recipient's longevity, health, and quality of life, as compared to like cases where the patient does not undergo transplantation. This is why the bioethics community looks with such interest at the beneficial effects of kidney transplants compared to renal dialysis.[138]

Coercive Family Systems

There is a great deal of depression and family conflict reported in cases where living donation has been an issue that did not work out smoothly, and to everyone's satisfaction. Factors which include high age, social support, and organ failure contribute to the conflict and strife. The key issue is that while informed consent requires free decision making, the family system may leave little room for refusal when asked to be a living donor, without lasting consequences.[139]

A sick family member and a healthy family member each have the right to their own autonomy and each have the right to their health. The sick one has the right to treat his ailment and to get better, if possible; and the healthy one has the right to remain healthy and not be invaded physically in order to provide treatment for the other. There are many valid reasons why one might refuse to donate tissue or an organ. Regardless of the reason, there are two equal but competing rights involved in the decision,[140] and the decision is in the hands of the potential donor.

---

[138] Journal of the American Medical Association 270 (1993), pp. 1339-43.

[139] S. Russel, R.G. Jacob, "Living-Related Organ Donation: The Donor's Dilemma," Patient Education And Counseling, 21 (1993), pp. 89-99.

[140] L.B. Bratton, L.W. Griffin, "A Kidney Donor's Dilemma: The Sibling Who Can Donate--But Doesn't," Social Work Health Care 20 (1994), pp. 75-96.

High Risk Living Donation

Living related donation has been successful in kidney and sectional liver transplantation, and recently in lobar lung transplantation. The major ethical dilemma faced in these cases is whether to risk the life of a parent or family member in order to save the life of this child or relative? In the case of a patient in need of one lung, it is now technically feasible; to risk or not to risk, that is the question.[141]

Transplanting organs is a "tremendously emotional" matter with ethical questions unique to this field of medicine, said Dr. Halasz, chief of surgery at the Veterans Administration Hospital in San Diego, chairman of the ethics committee for the United Network for Organ Sharing (UNOS), a private non-profit organization under contract with the US Department of Health to administer the national organ procurement network.

"We've been doing transplants for thirty-some years. Most ethical questions have been worked out, but new ones keep coming up," Dr. Halasz says. "One question we're dealing with now is fiscal rewards, whether it be paying funeral expenses, or a direct payment to the donor's family."[142]

---

[141] Mordechai R. Kramer, MD, Charles L. Sprung, MD, "Living Related Donation In Lung Transplantation," Archives of Internal Medicine 155, 1995, pp. 1734-1738; Abstracts, September 11, 1995.

[142] Christine Wolff, "Ethical Questions Stir Intense Debate In AMA," Cincinnati Enquirer, Friday, March 22, 1996.

Blood Donation

The great need for blood in the community of Cincinnati is not being met by the residents of the city. Hoxworth spent over $330,000 in the past year buying supplies from other blood banks to meet local needs.[143] Corporate blood drives provide nearly sixty percent of the blood collected each year, and the number of drives is down.

While the law does not allow this type of blood donation for compensation, Hoxworth Blood Center has a popular holiday blood drive that provides free gift wrapping to blood donors.[144]

This seemed odd, and appeared to meet the letter of the law without following the spirit of the law. There was a similar incentive offered by the Miami Seaquarium and the blood banks of South Florida are extending a special holiday offer to donors this holiday season. An advertisement in the Miami Herald announced that the Seaquarium will give a free adult and child pass to all South Florida blood bank donors.[145]

Gene Therapy

Scientists researching in gene therapy think they have found a way to make a bad hearts grow its own bypasses. Successful trials in human leg arteries are promising; researchers are awaiting FDA approval to try the procedure on a human heart.[146] If this becomes a reality, and successful, the possibility is that the researchers could next figure out how to have the body grow a new healthy organ to replace a diseased organ or tissue.

---

[143] Tim Bonfield, "Blood Bank Urges Donors To Give More," Cincinnati Enquirer, Monday, November 24, 1997, See also Tim Bonfield, "More Are Ineligible To Donate," Cincinnati Enquirer, Monday, November 24, 1997.

[144] "Get Your Presents Wrapped While Giving At Hoxworth," Cincinnati Enquirer, Monday, November 24, 1997.

[145] "Blood Donors Earn Passes," Miami Herald, Thursday, November 27, 1997.

[146] Daniel Q. Haney, "Genes Could Mend Hearts: Scientists Work On 'Growing' Bypasses," Associated Press, Orlando, Florida, Cincinnati Enquirer, November 10, 1997.

Cloning

On February 23, 1997, the front pages of newspapers around the world announced the successful cloning of a sheep named "Dolly." As the concept appeared on television and in magazines, the possible uses for the technique were endless. This has the potential to solve all of the problems of shortages, rejection and any other problems. After the recent cloning of headless tadpoles, the possibility of simply growing replacement organs from a person's own cells is intriguing. "What if the cells could be taken from any "imperfect" human for the growing of new hearts, lungs, toes and eyes? The possibilities are staggering."[147]

> The problem is that we never know when to quit. We are lovers of power, we humans, and lovers of perfection. In the face of cloning possibilities, that's a lethal combination of traits.[148]

The possibilities are endless, and the probability of abuse and corruption leading to disaster seem too great to ignore. For now at least, the reality is that the scientists who cloned "Dolly" are not sure that even they know exactly what happened or why. The cloning of organs and specific tissue is still a distant goal to work toward.

In the mean time, the people on the waiting list will all have to wait patiently for cadaveric and living donor organs to become available for transplant. To increase the number of organs that will become available in the near future, there is a new increased initiative in the United States to educate people about organ donation.[149]

---

[147] Deborah Kendrick, "Cloning Body Parts Great - But We Wouldn't Stop There," Alive And Well (Column), Cincinnati Enquirer, Sunday, November 16, 1997.

[148] Deborah Kendrick, "Cloning Body Parts Great -...," ibid.

[149] "Drive For Organs Gets New Life," Associated Press, Washington, DC, Cincinnati Enquirer, Tuesday, December 16, 1997. (For more information call the Coalition on Organ Donation at (888) 90-SHARE.)

II. Cases From Around The World

Great Britain

Much of the newest and most promising work outside of the United States is reported from Great Britain. The General Medical Council statement limits and restricts the practice of organ transplantation from live donors.[150] They continue their ban on commercial donations, and say that live donations are permitted, but attempts to increase the number of cadaveric donors should continue.[151] The hope is that with sufficient cadaveric donations that the need for living donors will disappear. The debate continued among the ethicists and medical professionals over the use of live donors in the United Kingdom[152]

Just as we have seen in the United States, here too we see the European transplant system directors are having the same discussion of "opting in" or "opting out."[153]

Kidneys from heart-beating donors are being used in some United Kingdom hospitals to increase the number of organs.[154] The issue here is one of recognizing brain death and the right to harvest organs. If brain death is the equivalent of death, there is no problem; if however brain death is not the same, then there is an issue with regard to harvesting organs from a living being and killing that person.

---

[150] Bulletin of Medical Ethics (November 1992), pp. 8-9; International Digest of Health Legislation 44, pp. 370-1.

[151] International Journal Bioethics 3 (1992), pp. 169-71.

[152] British Medical Journal 305 (1994), p. 956; Lancet 340, p. 1354.

[153] Bioethics News 12(5), (1993), pp. 20-9; See also Journal of the American Medical Association 270 (1993), pp. 1930-1.

[154] British Medical Journal 308 (1994), pp. 549-50, 575-6.

One criterion for selecting who will get an organ and who on the waiting list will be passed over is the likelihood that the person will in fact benefit from the organ. It was thought that the benefit received decreased after the patient reached age fifty. But the results of kidney transplants in persons over sixty years are said to be the same as those in younger people[155]

It was certainly no surprise to read that like elsewhere in the world there is a continued shortage of organs everywhere on the United Kingdom.[156] The European Parliament proposed a resolution prohibiting organ trade and promoting self-sufficiency in blood.[157]

For the first time that we know of, an artificial liver used in the United Kingdom has saved at least five lives, keeping a person alive for up to forty eight hours while waiting for a donor.[158] This is promising news. As the technology gets closer to being able to replace the organs and eliminate the need for living-donor organ donation, we approach a day when we will no longer need to weigh the risks of surgery for the donor and the benefit it would provide to the recipient, since it would no longer be necessary.

Autologous (Donating for oneself) blood donation is being encouraged in an effort to raise the blood supply and donation numbers in the United Kingdom,[159] and the future of umbilical cord-blood transplants[160] is being discussed and debated.

---

[155] Lancet 343 (1994), pp. 461-4; See also Canadian Medical Association Journal 149 (1993), p. 1003.

[156] British Medical Journal 308 (1994), p. 938.

[157] International Digest of Health Legislation 45, pp. 111-6.

[158] London Times (September 13, 1994), p. 10.

[159] Lancet 346 (1995), p. 1029.

[160] Lancet 346 (1995), pp. 921-2.

In the United Kingdom there are at least two groups campaigning against the transplantation of transgenic or humanized organs from pigs into humans, Doctors and Lawyers for Responsible Medicine and the Basel Appeal Against Gene Technology.[161] However, the British Medical Association (BMA) endorsed the Nuffield Council Report recommending in favor of their use.[162] The United States Institute of Medicine has backed some experimentation also, at the decisions of institutional ethics boards.[163]

Anything which may extend the time possible in which to perform operations should be welcome. A European multicentre study on the preservative solution used for kidneys[164] shows some real promise for extending the time an organ can remain viable before transplantation.

A recent study showed that of 1,550 children who received kidneys, forty-three percent of the kidneys came from a living related donor and fifty-seven percent from cadavers, with greater success among the recipients of kidneys from living donors. A report on a recent United Kingdom television program showed an expose on the commercial sale of organs.[165]

The British Parliament has condemned the sale of organs for transplantation, and is urging the Council of Ministers to ban the sale of organs in the European Common Market.[166]

---

[161] Genetic Engineering News (May/June 1996), p. 5.

[162] Hastings Center Report 26 (July/August 1996), p. 3.

[163] Science 273 (1996), pp. 305-6; New Scientist (July 27, 1996), p. 7; Lancet 348 (1996), p. 324.

[164] Lancet 340, pp. 129-37.

[165] British Medical Journal 305 (1994), p. 63.

[166] British Medical Journal 307 (1994), p. 756.

China

Brian Ross reports a story entitled "Blood Money," on ABC News Primetime Live.[167] Human rights organizations are up in arms accusing the government of China of dealing in human organs. Since 1990 they estimate that tens of thousands of kidneys and other organs have been sold, and that $10's of millions has been funneled to the military.

It is a "grizzly but lucrative" black market for organs which come from prisoners in China. Dr. Ronald Guttman, Advisor to the International Transplantation Society, called it an "open secret." "Barbaric and disgusting, it is merely a question of supply and demand."

Over 4,000 prisoners were executed in China last year. In many of these cases, the prisoner was prepared before the execution with anticoagular drugs and muscle relaxants. Then he was taken out like the other, but the shot would be directed purposefully and the prisoner was then rushed into a waiting ambulance. They would quickly remove all of the vital organs, eyes, skin, and bones. Then the organs and tissue was rushed to operating rooms, where teams were standing by, prepared to transplant, waiting for them.

Chinese newspapers in Manhattan list phone numbers offering to provide organs and transplants. The reporter called one number and spoke to a man in Bridgeport, Connecticut. He set up a meeting and tried to get the man to arrange a kidney transplant for him. It was as easy as buying a car. Orders are placed and the reservation is made, and soon after the merchandise can be delivered or transplanted.

The man told the reporter that there was a new batch of prisoners scheduled to be executed soon, on such and such a date. An organ can be reserved from that group, he assured the reporter. $30,000 complete; $5,000 deposit reserves the hospital room, an operating room, pays for the surgeon and for the organ – guaranteed to be healthy and a match.

---

[167] October 15, 1997.

The situation is one that the human rights groups say is wrong no matter how it is being run. "There can be no possible consent from prisoners," says Guttman. "No other country in the world uses prisoners' organs like China does."

Embassy spokespeople denied all accusations and were furious that the government here allowed such wild accusations. But the story was shared with officials in Washington, and now the State Department is investigating.

Lest one think that this television program made this up, there are journal articles written from time to time on kidney trading going on in Hong Kong.[168] Part of the difference is also that there are different societal expectations; for example, approximately one million people in China earn money to live from selling blood.[169] This makes a recent announcement more difficult for the people there to cope with, namely that in Beijing, China, blood donation is to be compulsory.[170]

On Tuesday, February 24, 1998, the United States State Department arrested two Chinese men in New York City, and charged the men with conspiracy to arrange transplants of kidneys and other organs from the bodies of Chinese inmates.[171]

---

[168] Lancet 338, p. 453.

[169] Lancet 338, p. 501.

[170] Lancet 339, p. 545.

[171] Christopher Drew, "Organ Selling Alleged: 2 Chinese arrested in FBI operation," New York Times, Cincinnati Enquirer, Tuesday, February 24, 1998.

India

Elsewhere in the world, there are wild tales of organ trafficking all throughout India, but current reports claim that India is making it more difficult for commercial organ trade.[172] It is estimated that up to fifty illegal kidney transplants are carried out each day in India.[173] This is despite the 1994 Human Organs Transplant law.[174] The reported cost of kidney transplants in India is attracting many rich clients from around the world.[175] Every year about 2,000 kidneys are bought from live donors, a turnover of $10 million; it is called a kidney bazaar. Many poor people get for them substantial sums, less than $1000 for a kidney, enough to buy a house and set up a rick-shaw business. The kidneys are sold by dealers for about $3000. There has also been an illegal trade in live cornea donations, paying $2300 an eye, for people who want to avoid the queues from the dead cornea donor programs.[176]

"Recently in India commercialization of organs has been a blot on the ethical foundation of the medical profession. There was then no comprehensive law controlling organ transplantation." There was an organized network throughout the country doing unethical things, trading in human organs through an "organ racket."

---

[172] Nature Medicine 1 (1995), p. 190.

[173] Bulletin of Medical Ethics 109 (1995), p. 4.

[174] Methods to protect people in a commercial system are discussed in G.J. Banks, "Legal & ethical safeguards: protection of society's most vulnerable participants in a commercialized organ transplantation system," American Journal Of Law and Medicine, XXI (1995), pp. 45-110.

[175] Lancet 337, p. 1534.

[176] On the general topic of commercial exchange of kidneys see British Medical Journal 303 (1994), p. 110.

Some nursing homes acted as frontal outfits. Rich buyers from India and abroad have been buying kidneys and other organs from poor slum dwellers and rural folks without proper information and consent of the concerned persons. The choice before the poverty stricken people is whether to sell one kidney and live or to keep both kidneys and die of starvation. Unfortunately some of the donors did not survive to receive the monetary remuneration promised.

The law that the donor should be a relative or spouse was also circumvented through certain dubious means such as "kidney marriage" by rich Gulf country men, marrying a girl before the operation and divorcing her soon after surgery. Another method was transboundary smuggling of organs by live carriers where trade can take place in a foreign country where laws are not so strict. There were other criminal ways of stealing kidneys on the pretext of performing other operations like appendectomy or kidney stones.

Human organs like kidney, liver, heart or fragments of the human body like skin, semen, eggs, genes, embryos and even fetuses are sold over the counter as a commercial enterprise in parts of India. Andrew Kimbrell's book, The Human Body Shop[177] reveals the following: Unregulated fetal tissue brokers sell tissue from India to buyers in the United States, reaping close to a million dollars a year in fetal organ sales. Researchers have successfully transplanted fetal organs into laboratory animals creating transgenic, "humanized" mice. Babies are bought and sold through surrogate mother contracts. Frozen embryos are often in legal limbo as the courts decide whether they are people or property; and numerous patents on human genes have been awarded.

---

[177] Andrew Kimbrell, The Human Body Shop: The Engineering And Marketing Of Life," New York: Harper Collins Publishers, 1994.

In an attempt to overcome the uncontrollable trade in organs the Indian parliament passed a bill in 1994, in keeping with the World Health Organization guiding principles, prohibiting commercial dealings. There are restrictions for removal and retrieval of human organs and also regulations of hospitals involved to ensure transparency by all concerned. The law prohibits removal and transplantation of organs for any purpose other than therapeutic. Surgery can only be done after explaining the effect and risks both to the donor as well as the recipient. For violation of rules the act prescribes a minimum imprisonment of two years extendible to seven years and a fine of Rs. 10,000 to Rs. 20,000 for the middle man. They have also passed legislation recognizing brain death.[178]

Iraq

The going rate is Iraq for a kidney is US$500. The government has outlawed the selling of organs, but to no avail. It is legal in Iraq to gift an organ to a relative, and no money may change hands. Seven years of United Nations sanctions have led to desperate times. The most recent legislation made it illegal to donate a kidney to a foreigner, but thousands have sold kidneys to foreigners from all over the Arab world who travel to Iraq to undergo a kidney transplant, despite government regulations.[179]

Indonesia & Sri Lanka

Indonesia and Sri Lanka have already made commercial organ trade illegal; however, it must still be introduced to each state of India.

---

[178] British Medical Journal 304, p. 1333.

[179] John Donnely, "Desperate Iraqis Selling Their Body Parts," Knight Ridder News Service, Baghdad, Iraq, Cincinnati Enquirer, Monday, February 16, 1998.

Taiwan

In Taiwan, criminals that have been sentenced to death are asked about organ donation. In the year this has been underway, twenty one out of the fifty one asked have agreed to give organs, and these organs have been used. The criminals are anaesthetized, then shot in the head (brain stem) on the operating table, then put on a respirator while organs are removed (heart, liver, kidneys, corneas, etc.).[180] A priest counsels the prisoners and their families; some are happy to give. However, even if it is better than being shot by the firing squad, some people are against the practice because of the questionable consent, let alone the ethics of the death penalty.

Philippines

An article recently exposed an alleged scheme for payment of Philippine kidney donors.[181] The donor was said to receive three million yen, however, the bad publicity in the newspaper may discourage the transplant.

Japan

In Japan, the bone marrow bank has issued guidelines for operations using unrelated bank material. Recipients must be less than forty five years, and not have relatives who could provide material. Donors must be between twenty and fifty years old, and weigh forty five kilograms if they are male, forty kilograms if they are female. Only operations performed in hospitals where there have been fifteen cases in the last three years and five cases in the previous year will be supported.[182]

---

[180] Asahi Newspaper (October 10, 1991), p. 3.

[181] Yomiuri Shinbun (June 4, 1994), p. 31.

[182] Asahi Newspaper (April 11, 1992), p. 31.

In a recent television program in Japan, a telephone service for buying a kidney was tested, and the conclusions were mixed as to whether it is happening. The organ transplant law in Japan does not forbid selling kidneys from live donors, and the new law is still in the waiting stage in the Parliament (rather than a debate stage some would say). There will be further decisions required to expand the use of organ donations from cadavers in Japan, though some are already performed.[183]

Honduras

The Honduran government has launched an inquiry to investigate the claims that crime rings are kidnapping children for use in adoption and as organ donors. In the last six months 600 children have been reported missing, most thought to be sold for US$5000 for adoption; however, on April 16, 1997, a child's body minus major organs was found, supporting claims that an organ trade also exists.

Brazil

The law is in effect but the procedure for registering objections is still to be introduced. Brazil has also approved an "opting out" system, in which all are assumed to be willing donors until or unless they indicate otherwise, and opt out. Elsewhere in the Amazon basin, there was a discussion of surgery scars on Indian villagers who may have not even been aware, let alone given consent for kidney removal.[184]

---

[183] Eubios Ethics Institute Newsletter 1, p. 82.

[184] Scientific American (March 1996), p. 12.

In Sao Paulo, parents of a fifteen year old girl who underwent surgery for kidney stones as a child, have a filed a complaint, having recently learned that their daughter has only one kidney left. Apparently the doctor took the second kidney when he operated on the child, and never told anyone. If found guilty, the surgeon could lose his medical license.[185]

Argentina

In another rather horrific disclosure, it has been uncovered that some patients in a mental institution in Argentina were killed for their organs.[186]

Russia, Hungary & France

In November, Russia passed a law banning the selling or buying of human organs, in an effort to curb the black market organ trade.[187] A critical discussion and debate appeared recently on the ethical problems in the current Hungarian organ transplantation law.[188] The recent French law prohibits organ sales.[189]

Holland

---

[185] "Doctors Accused Of Needlessly Taking Kidney," Associated Press, Cincinnati Enquirer, Wednesday, January 21, 1998.

[186] British Medical Journal 304, pp. 1073-4.

[187] British Medical Journal 305, p. 1178.

[188] Bulletin of Medical Ethics 92 (October 1993), pp. 20-4.

[189] New Scientist (July 2, 1994), p. 6; British Medical Journal 308 (1994), p. 1528.

A Dutch insurer has been ordered by a court to fund a Belgian transplant that was against the advice of Dutch surgeons.[190] This ruling is significant in that it shows the freedom of the patient to make decisions about his own healthcare and body, and the legal backing that the insurance company must allow the patient much the same latitude.

Poland

Poland has passed a new organ donation law, based on the "opting out "system.[191] The hope is that this will maximize the number of organs and the amount of tissue that will be available for transplant.

Switzerland

In Switzerland 6 patients were given cow cell implants in their spines to control pain.[192] Here again the use of implanted cells is a beginning toward the use of animal cells for many of the procedures we thought had to involve the use of human tissue and organs for transplantation.

New Zealand

In New Zealand many of the health services have been privatized, but the gift status of blood will be maintained under the Blood Transfusion Trust. There are 161,500 registered donors among the 3.6 million people. The ethical issue continues to be debated.[193]

---

[190] British Medical Journal 309 (1994), pp. 689-90.

[191] Lancet 347 (1996), p. 754.

[192] New Scientist (August 3, 1996), p. 20.

[193] Journal Of Medical Ethics 20 (1994), pp. 31-5.

Australia

Another solution to help overcome the organ shortage is to use kidneys from older donors, which is being considered in Australia.[194] The issue here is two-fold, that the organs may not be as strong, reducing the possible benefit to the recipient, and that the donor may not be strong enough to endure the harvest procedure successfully. It could very well be that the risk to benefit ratio here is not a good one, although the statistics and early results are encouraging.

Turkey

Thirty-four kidney transplants were performed with kidneys harvested from living donors all of whom were older (than sixty years of age). The study boasted a ninety-seven and one-half percent patient survival rate, and an eighty-five and one-third percent graft survival rate. Clearly these are more than satisfactory results.[195] While there are some who question the ethics of using donors from this age group, it is difficult to question results like these.

Canada

Medical directors of all seven Canadian adult liver transplantation centres, or their designates were surveyed. Alcoholism, drug addiction, HIV positive status, primary liver cancer, non-compliance and hepatitis B were the most important criteria that had a negative influence on decisions to place patients on the waiting list for liver transplantation.

Severity of disease and urgency were the most important criteria used for selecting patients on the waiting list for transplantation. Criteria that were inconsistent across the

---

[194] Medical Journal Of Australia 58, pp. 588-90.

[195] M. Haberal, S. Sert, S. Altunkan, H. Gulay, E. Hamaloglu, O. Bulut, "Kidney Transplantation From Elderly Living Donors," Turkish Transplantation and Burn Foundation Hospital, Ankara, International Journal Of Artificial Organs 14 (1991), pp. 335-337.

centres included social support for deciding who is placed on the waiting list and length of time on the waiting list for deciding who is selected from the list. Each of the items is potentially an individual discussion and an ethical dilemma.

There are a variety of contributing factors that make someone a better or worse candidate for an organ, but at the same time we must always be mindful that every human being who comes forward to put his or her name on the waiting list is a person; and that that person is sick, just like all of the other people on the waiting list, and without that organ or tissue, that person will likely die. This must make that job one of the most difficult and stressful positions one could possibly be in. With the stroke of a pen or the click of the mouse the decision is recorded and that person is still in the ring fighting or is down for the count.[196]

Germany

Ninety-nine kidney donations were tracked from January 1967 to December 1988. Of the recipients, only four out of ninety-four had died in all that time, having nothing to do with the kidney. Less than three percent of the cases experienced any intra-operative complications and one quarter experienced post operative complications, which did not result in severe consequences for any of the donors.

After all of this time the study shows that two of the donors showed signs of hypertension; and that none of the donors showed any sign of decrease in function of the remaining kidney. This study also suggests that there is little or no correlation between HLA DR-matching and graft survival.[197]

---

[196] Michelle A. Mullen, MA, et al, "Access To Adult Liver Transplantation In Canada: A Survey And Ethical Analysis," Canadian Medical Association Journal, 154 (1996), pp. 337-342.

[197] F. Langle, M. Gnant, T. Sautner, F. Muhlbacher, G. Kretschemer, O. Traindl, J. Kovarik, K. Derfler, P. Balcke, J. Steger, et al, "Experiences And Clinical Results Following 99 Kidney Transplantations With Kidneys From Relatives," Chirurgische Universitatsklinik, Wien, Wien Klin Wochenschr 102 (1990), pp. 148-151.

III. Cases From Israel

The amazing medical technological achievements of this century have presented us with some difficult dilemmas, but between the doctors and the rabbis, Israel has it all under control.

> The Israeli medical system, one of the most advanced in the world, is guided, in part, by halakhah. A 1980 law mandates that judges take "the Jewish tradition" into consideration when making judgments -- including, of course, those on medical issues. Rabbinic opinion, although not binding, exerts a significant influence on the Health Ministry, which routinely consults halakhic experts before making decisions involving bioethics.[198]

The halachah form a fascinating system which combine the values of goodness, health, reproduction and the saving of life, with a remarkable openness to technical wizardry. When all of the rabbinic values and Torah principles are combined and applied, "the Jewish value system has fosters a remarkably open-minded system of bioethics."[199]

There are several basic medical issues that have been at the forefront of all bioethical debates in recent years, and what follows is in the broadest of terms the Jewish point of view, and the generally accepted point of view in Israel. This is not to say that all experts agree, but rather that these are in broad enough terms to be generally acceptable to most experts in the field.

Women in Israel who are already undergoing IVF treatment are routinely asked to donate their surplus eggs so that women who cannot produce eggs, but who have healthy wombs, can bear children. Health Ministry regulations forbid women who are not themselves seeking to become pregnant to make egg donations, which require a painful process of hormone injections. All donors are kept anonymous.

---

[198] Felice Maranz, "Playing God," Jerusalem Report, July 18, 1991.

[199] Felice Maranz, "Playing God," ibid.

Surrogate Motherhood

The same technology that helps infertile women to bear children can also allow them to sponsor other women to carry the children to term. A woman with healthy ovaries who is incapable of bearing children can have her eggs extracted, fertilized and implanted in another woman's uterus.

So far, however, wombs are not "for rent" in Israel. One reason is that rabbinic authorities have conflicting opinions on which woman -- the egg donor or the woman who bears the child -- should be considered the mother. In a bid to avoid making decisions about surrogate motherhood, Health Ministry regulations effectively forbid the practice.

Organ Donation

A 1988 case before the Israeli supreme court has become a classic example of an organ donation dilemma: The father of a mentally retarded son needs a kidney transplant, and his son was a suitable donor. Could his kidney be taken, despite the fact that he was incapable of giving his permission.

In this particular case the court ruled against the donation but did not establish its ruling as a general principle -- leaving the door open for future debate. Mordechai Halperin, an Orthodox rabbi and practicing gynecologist who works as a Health Ministry adviser, in addition to editing Assia: A Journal of Jewish Medical Ethics, has outlined several general halakhic rules on donations: A donor's life must never be shortened by giving up an organ; even if a donor's life is not shortened, he or she is in no way obligated to donate an organ; the act of making available an organ is an extremely meritorious deed.[200]

---

[200] Felice Maranz, "Playing God," ibid.

Rabbis can reverse previous halakhic rulings, as is the case for heart transplants dramatically illustrates. In 1968, the highly respected Rabbi Moshe Feinstein unequivocally ruled that heart transplants were double murder: the recipient, he argued, would live longer with his own heart, and the donor was still alive when the heart was removed. But seventeen years later, upon the request of the Health Ministry, the Israeli Chief Rabbinate decided to review the question.

After examining new medical techniques, the rabbis ruled in favor of transplants. One reason: Ways had been found to determine that the donor was brain dead before the heart was removed. Another change was that new drugs reduced organ rejection, meaning recipients could live much longer after the transplant. A side effect of the ruling was halakhic acceptance of brain death.[201]

Organ transplantation has remained an issue in the bioethical and halachic spheres in Israel. Today, in Israel as in the rest of the world, the key issue is how to solve the shortage of organs and help as many people as is possible. One way of doing so is to cooperate on a grand scale and link all of Israel's resources with the rest of Europe's and the rest of the world. But it is never easy, as we will see.

"We can't live on livers from abroad," says Professor Shmuel Penchas, head of Jerusalem's Hadassah University Hospital.

Eurotransplant, in Holland, and other European organ banks supplying kidneys and livers to patients all over the world, are becoming increasingly reluctant to provide Israeli hospitals with organs for transplant. Jeroen Kodde of Eurotransplant said that, "Donation is a necessary solidarity between people -- and a chance to save a life."

---

[201] Felice Maranz, "Playing God," ibid.

Israel is much like the United States, and the rest of the world, in that the people say they are in favor of donation, and they would donate if they were in the position to do so; however, the numbers do not add up. When the time comes, people do not donate, for whatever reason. When the Israelis need organs from the Europeans, and the Europeans do not want to share with the Israelis because the Israelis don't share with them, it is difficult to make excuses. The truth is the Europeans are correct; Israelis should be more generous when it comes time to donate cadaver organs, and Israelis must give more organs to the Eurotransplant partners if they expect to continue receiving.

The Jerusalem Report cites reasons for the organ shortage in Israel: Israelis are poor organ donors. Dr. Zaki Shapira, head of the Transplant Unit at the Beilinson Medical Center in Petah Tikvah, near Tel Aviv, says only thirty percent of Israeli next-of-kin consent to donate the organs of deceased family members; the rate in the West is sixty to seventy percent. That is a huge difference; and considering what Judaism teaches about the value of life and the importance of saving a life, it is surprising how few Israelis actually participate when presented with the opportunity.

Dr. Shapira notes that in the last eighteen months Israel has sent eight livers to Europe and received only three, but many patients go abroad to have their liver transplant. In 1989, the last year for which Health Ministry statistics are available, thirty-three Israelis underwent liver transplants abroad, mostly in Europe.[202]

Health-care funds cover up to $100,000 of the cost of the life-saving operation, which runs from $250,000 in the United States to $60,000 - $80,000 in Europe. The same operation in Israel costs only $28,000, but the shortage of livers means that even those who want to have the surgery in Israel cannot.

---

[202] Ruth Ebenstein, "The Organ Shortage," Jerusalem Report, November 7, 1991.

Indeed, kidney and bone marrow surgery has become routine; in 1989, almost 300 bone marrow and about one hundred kidney transplants were performed on Israelis. Still, making a good tissue match is a problem in a country like Israel, where people come from almost one hundred countries and there are many different genetic strains. In addition there is Jewish religious law which forbids any action that could shorten life.

Israeli doctors have the necessary medical skills; but the skills are not worth a great deal without an organ to transplant.[203]

Patient's Rights

"In the West Bank settlement of Kiryat Arba, residents admire Dov Lior, the community's rabbi, for speaking his mind. He's not like other rabbis, they will tell you; he isn't afraid of controversy and cares more for truth than his own reputation."

Lior was quoted as having called for Israeli army medics to practice their skills, train and perform medical experiments on captured Arab terrorists. He claims not to have said that at all, and that he meant that they should practice their basic skills on the prisoners rather than on the other medics and the Israeli soldiers in their units.

> In 1979, a student from the yeshiva for soldiers Lior heads in Kiryat Arba was training in an army medic's course. Following standard procedure, the medics practiced giving infusions on each other and on recruits. But Lior's student insisted that captured Arab terrorists, rather than Israeli soldiers, be used for the practice infusions. Disturbed, the unit's doctor wrote to Lior, who replied: "If there is the possibility of conducting experiments on non-people[204] who would be punished by death in a state where law prevailed... we should undoubtedly do so."

---

[203] Ruth Ebenstein, "The Organ Shortage," ibid.

[204] Lior considers criminals who await the death penalty, and those who are deserving of death under Jewish law but are not subject to the Jewish law, to be non-persons, and therefore sub-human, and not entitled to the same rights and responsibilities as other people.

The issue was made public recently because Lior was among those being considered for the top religious court, and possibly even to succeed the chief Ashkenazi rabbi of Israel. Lior denies having sanctioned "medical experiments" -- an emotionally loaded term that recalls the Nazi death camps -- but says that he approved only infusions, the only "experiment" he specifically sanctions in his letter.[205]

The issue is a moot point; it is not feasible, nor something the world would allow. However, the question of what we as Jews believe and would do is quite another. This is a combination of a Jewish, a halachic, and an Israeli issue. From a biomedical stand-point there is little question that this is absolutely not acceptable. From a rabbinic, halachic point of view, there are many interesting issues involved here that will be discussed further in Chapter 5.

Bioethics are an important field within the Israeli society from a medical point of view as well as from the legal perspective. There are issues debated in the Israel Law Review related to organ trade and the goal of pursuing justice in this arena, as in all other arenas of Jewish, Israeli life.[206]

Another area of direct relation to the topic at hand is bone marrow donation and the registration process. Jews have several times in various parts of the world cried out world-wide to Jews to register in the hopes of having a larger pool of possible types to match when there comes a time when there is a desperate need.

---

[205] Yossi Klein Halevi, "There Goes The Judge?" Jerusalem Report, March 26, 1992.

[206] N.J. Zohar, "Toward Justice In The Organ Trade," Israel Law Review 27 (1993), pp. 541-65.

While there are already 1.5 million potential donors already listed in the networked bone marrow registries around the world, including over 100,000 Jews, there are certainly combinations and blood types that we have no match for as of yet. If a bone marrow donor has not been found so far, it means that the search has exhausted the million and an half possible registered types, and that finding a match with the few people who can register in time to make a difference is not likely. But on the other hand it takes only one person to be tested to find a match, and to save a life. The odds are certainly against any one individual being a match, but as a collective by getting tested and adding our profiles to the list, we increase the chance that someone will find a match. Anyone who does not find a match in the million and a half listings already on the records probably has a very rare genetic makeup (each person's bone marrow bears twenty markers out of a possible 350).

Logically, finding a rare match not already registered in the donor pool would require as many as half a million more donors be tested before an exact match could be found. Among the most widely publicized cases was that of an American Jewish teen, Jay Feinberg; more than 40,000 Jewish would-be donors have come forward and been tested thus far as part of this search, at a cost of two million dollars raised by the campaign.

Transplanting bone marrow is both simpler and more complicated than transplants of organs like hearts or kidneys. The procedure, an ordinary transfusion, is not a delicate surgical operation. But the nature of its effect on the body's immune system necessitates a one hundred percent match between donor and recipient. This is a major difference, making the system of identifying, locating and procuring the tissue a huge undertaking. With the myriads of possible mixes to match, there is an almost unlimited amount of testing to be done, and even then we might not have all of the matches being searched for at any given moment.

In other transplants doctors can use drugs to suppress a hostile reaction by the immune system. In bone marrow transplants, it is the immune system that changes and unless there is a perfect match, the blood cells produced by the new marrow will attack the recipient's body.

The national need for liver transplants is assessed to be about ten to fifteen per million population for Israel.[207] While this may seem low per capita, it is still more organs than Israel is getting. The need is there, and the organs are not.

Israel is trying to do the best that she can, and with all of the difficulties and setbacks that any bigger country might experience. Scandalous commercial transactions of some doctors in Israel surrounding kidneys for transplantation has been exposed in a newspaper, and the government is investigating.[208] Donations to non-family members are now for the first time in Israel being endorsed; and following this announcement, kidney allocation and ethics is discussed.[209]

One article about the organ situation in Israel by Gershon B. Grunfeld, of the Technion Institute in Haifa, includes many of the major statistics and relevant facts for our needs in the following excerpt:

---

[207] Lancet 346 (1995), pp. 660-2.

[208] Lancet 348 (1996), pp. 189, 260.

[209] Lancet 348 (1996), pp. 194-5, 422, 453-7.

Israel suffers from a chronic, continually increasing shortage in organs for transplantation, while the willingness of the public to donate organs dropped twenty-five percent last year (1995). Unlike some countries in Europe, Israel has not adopted (and probably will not adopt) a system of presumed consent for cadaveric organ donations. The current system in Israel requires permission to be granted by the family of the patient before an organ can be used. While there is a central registry (managed by the Ministry of Health) of people carrying donor cards to be used in the event of death, the number of those carrying the card is approximately 79,000[210] out of a general population of over five million people. Although the central registry has been active for many years, all attempts to increase the number of registrants have failed. Currently, in the event of death, family members usually get veto power over the choice of their loved one. On the other hand, until recently, relatively little was done to train teams for approaching families and asking for organ donation in the event of brain death. Interestingly, the Israeli Anatomy and Pathology Law (1953) allows for "using part of a corpse when it is needed to save the life of a person" without any consent. This law has very rarely been used and on one celebrated occasion may have brought more damage than benefit. On June 19, 1993, a heart, liver, lungs, and kidneys were harvested from an anonymous traffic accident victim in Beersheba and transplanted in five patients in Israel. After all attempts to identify the family failed, the hospital staff harvested the organs without consent. This person was not carrying a donor card. The story was described on the front pages of the daily newspapers as a case of "organ robbery," and public response was so unfavorable that no similar attempts have been made since. Until very recently, the six large transplantation centers in Israel did not share information, kept separate waiting lists, and cooperated only on an ad hoc basis. That changed with the establishment of the Israeli Center for Transplantation, which will also coordinate educational efforts to increase the willingness of the public to donate.

---

[210] This number was correct as of the end of September 1996.

The shortage of organs for transplantation in Israel has also created practices that are far from ethical. In recent years reports have been published in Israel about Israelis who travel to neighboring countries (especially Egypt) and buy a kidney for transplantation from poor immigrant workers. Some papers have even reported the existence of such practices in Israel, which are currently being investigated by a governmental commission. Interestingly, the Jewish Halacha does not forbid selling or buying organs from the living, even if the seller is poor or in debt.[211] With more than 2,000 Israeli patients currently dependent on dialysis, more than 700 patients waiting for transplantation, only about one hundred kidney transplants a year, and no prospects in the current system of solving the shortage in kidneys for transplantation, Israel will have to face the challenge of developing a regulated system for living-donor organ donations. This will still leave the problem of shortages in other organs unresolved. [212]

The major issue in Israel, as it is elsewhere around the world, is on the one hand the shortage of organs for transplant and on the other the dire need for them. No figure is available on the number of organs transplanted into Israelis, but only two percent of the population – 110,000 Israelis – currently carry donor cards, as compared to fifteen to thirty-five percent in western Europe, and twenty-five percent in the United States.[213]

---

[211] A.S. Abraham, Comprehensive Guide To Medical Halacha, Jerusalem: Feldheim, 1990, p. 173.

[212] Gershon B. Grunfeld, Ph.D., "Ethical Issues In Organ Transplantation In Israel," Eubios Journal of Asian and International Bioethics 6 (1996), p. 169.

[213] Janine Zacharia, "Can Someone Find A Kidney For Reuven?" Jerusalem Report, December 11, 1997, p. 18.

We do know that in 1996 there were forty one cases of consent being granted for organ donation. That is an increase over 1995 when only thirty three cases of consent were reported. The problem is first of all one of societal unwillingness to cooperate and donate. This has been the case elsewhere and we know from experience that education and time are the two factors that allow the process to change that. If the people were aware and willing, the next hurdle would be the staff at the hospitals. They must be educated and taught how to solicit consent from families. Without a doubt, having done this on several occasions, it is frightening and uncomfortable to ask, but it is a necessary task in this country by law, and it is necessary in Israel, by necessity, if they are to see any kind of an increase in donation.

The Government Health Ministry has launched a major organ donation education project geared at getting people comfortable and familiar with talking about it, and getting families to talk about it and share with their loved ones their wishes.

There were only 380 requests for donor cards per month in 1995, followed by a jump up to 1,096 requests per month in 1996, and then an equally impressive increase to 2,690 per month so far this year. That is the good news.

Israeli Health Ministry rules prohibit trade in organs, to the frustration of some on the waiting list. "We found somebody with the blood type and characteristics, willing to sell a kidney," says Nira, whose husband's kidneys have not functioned since a car crash two years ago. But the ministry torpedoed the deal. "Organs can only be donated by relatives or acquaintances for altruistic reasons," says Nira bitterly.[214]

---

[214] Janine Zacharia, "Can Someone Find A Kidney For Reuven?" ibid., p. 19.

These rules, however, are not always so effective. There were reports last year of Palestinians selling organs to Israeli hospitals; the ministry is responding to these accusations and stories by drawing up tougher legislation. "We don't want poor people selling organs," says ministry Director General Gabi Barabash. "On the other hand," he adds, referring to Israelis who seek transplants abroad, "I can't condemn somebody for doing their utmost to get a donor organ."[215]

In the February 13, 1998, issue of the Forward, there is a story about the Knesset having to cancel their blood drive. Apparently all members of Knesset were invited to donate except for Adisu Massala, an Ethiopian-born member of the Labor Party, who charged discrimination. He accused some members of Knesset of believing that the Ethiopians' "blood is filthy and could transmit diseases."[216]

The values shared with regard to the sanctity of life are strong and clear, and the shortage of organs and tissue universal. The results are similar all over, although some countries are faster or slower to change. There is a supply and demand imbalance that leads to a black market situation, and to increasing instances of living donation, be it legal or not. There are some who are related or who are granted permission to donate, and then there are those who use their financial influence to find the right doctor to help them out.

There are conflicting values when someone is in this life-or-death situation. There are sometimes no good answers. If there were a way to solve it, it would be done, but since there seems not to be a legal or ethical way to solve this problem, people are forced to live with the consequences, or to act in a manner which is immoral and or illegal.

---

[215] Janine Zacharia, "Can Someone Find A Kidney For Reuven?" ibid., p. 19.

[216] "Bad Blood In Knesset," Forward, February 13, 1998.

Our first reaction to that statement should be to condemn this act of disobedience, the illegal purchase of tissue or organs from living donors, but at the same time, it seems difficult to condemn an act of life-saving heroics, albeit illegal and immoral. In the United States people use their influence to get organs when they have countra-indicating symptoms, and in Israel they buy what they need from whoever they can. In Europe there is a cooperative mentality that we are all in this together and therefore it is up to each one of us to find solutions for all of us, or else we will all suffer the consequences. In India, China and in South America, we see what can happen when we let the system take over, and we stop caring for and looking after the poor people, and the people who can not look after themselves.

Blood, bone marrow, organ and tissue donations are among the few things in the world that money can not always buy. Except for rare exceptions, there are few times when one can donate to himself; we must rely on the fact that someone else will provide. It is not as important who it is, as it is that he or she is there. The donation is rarely convenient, pleasant, or easy, but it is often necessary in order to save a life. It is helpful to imagine that the donor is in the recipient's place, and then for the donor to decide whether to donate. It seems logical that if the donor imagines that she were in need of the donation, she would hope that the donor would make the donation. If the roles were reversed, one would hope that the recipient too would be willing to donate for someone else.

Chapter 4.

Biomedical Ethics

I. Bioethical Perspectives

Bioethical issues and dilemmas are everywhere in the medical world, and they seem to appear when they are least expected. Hospitals have independent ethics committees and boards to address those situations that raise difficult moral questions. The type of perspective sought in this chapter is one of which clarifies the moral status of principles, policies, rules, and procedures. To what extent are they morally good, neutral, or bad? There are those whose job it might be to suggest when there is legal risk or financial exposure in going ahead with a procedure, but then there is the more basic, less rule oriented, ethics. This is not to say that bioethics is without guidance or that ethics committees are without guidelines and statements of policy. So often do issues arise that, here in Cincinnati, a center has been established to function as a sounding board for health care professionals in the community.[217]

The most important problem is to overcome the shortage of human organs and tissue for transplantation. Preventing some of the need for the organs and tissue is one way, and alternate methods of treating conditions which produce this overwhelming shortage is another. If there were alternatives to using human tissue, they would certainly help to eliminate living donation of any type and the risk factor involved.

---

[217] "Health-Care Center Offers Sounding Board On Ethics," Cincinnati Enquirer.

The issue at the forefront is the risk to the donor and the extended risks that could arise as a result of any complications or after affects. An example of this is the risk that a living donor provides a spare kidney and could then later develop a condition which could render the one remaining kidney inoperative. With an extra kidney built in, most people would be fine to function on one kidney, but if one is donated and the second, and only remaining kidney fails, this could have life-threatening consequences.

Shortage

If tissue can be harvested in sufficient amounts and organs in sufficient numbers so as to eliminate the suffering and deaths of patients awaiting organs for transplant, then there would be no more need to put otherwise healthy individuals under the knife. The risk incurred by becoming a living donor could become a moot question. When an individual is sick, the doctor is there to heal; but when an individual is healthy, the doctor is supposed to do nothing. Certainly the doctor is supposed to do no harm.

Published annual reports estimate potential cadaveric donors in the United States to be somewhere between 4,992 and 28,954 annually. A recent study estimates that 6,900 to 10,700 of the potential donors actually donate annually.[218] Healthcare professionals may forget to ask patients to sign an organ and tissue donation form; a patient may die before giving consent, or the members of the family may refuse to allow their consent when the time comes. For all of these reasons and more, we only actually obtain organs from thirty-seven to fifty-nine percent of those who fall into the potential donor pool.[219] This is an unfortunate reality since we know that there are consistently fewer organs available than are needed.

---

[218] R.W. Evans, C.E. Orians, N.L. Ascher, "The Potential Supply Of Organ Donors: An Assessment Of The Efficiency Of Organ Procurement Efforts In The United States," Journal of the American Medical Association 267 (1992), pp. 239-246.

[219] Evans, "The Potential Supply Of Organ Donors:...," ibid.

Rectifying this situation is one possible method of eliminating the need for living donation. If there were enough cadaveric organs so that the mortal threat to people on the waiting list became nonexistent, the ratio of risk to benefit becomes such that the risk is no longer worth while. Living donation is allowed only as a means of saving another person's life, and even then, only when the risk factor is determined to be in the minimal to low ranges.

Only one out of nine who could benefit from a heart transplant gets one. Over 60,000 people die or are maintained under sub-optimal therapy, such as dialysis, who could benefit from an organ transplant.[220]

With the increasing success rates in transplant procedures more people are coming forward to put their names on the waiting lists. From December 1986 to May 1993, the number of people registered for organs or tissue, awaiting transplants, in the United States increased steadily from 9,632 to 31,303 people. The 1988-1992 supply of cadaveric organs only increased from 4,085 to 4,521.[221] The direct result of this ratio and the perpetuation of this inequality is that we must contend with chronic shortages now and for the foreseeable future.[222]

---

[220] Reinhard Priester, Editor, "Organ Transplantation," The Center for Biomedical Ethics, University of Minnesota, Revised September 1993.

[221] UNOS Newsletter, June 1993.

[222] UNOS Newsletter, June 1993.

The Uniform Anatomical Gift Act (UAGA) passed in all fifty United States, and in Washington, DC, in the late 1960's and into the early 1970's, establishes the right of the individual to determine the use of his or her organs (and tissue) through voluntary donation. The Department of Motor Vehicles (DMV) registry is a readily available for registering a person's wishes, since most people carry a driver's license on their person. Where the wishes of the individual are not known, the burden of deciding rests with the next-of-kin. The UAGA is now seen as an inadequate means for increasing the supply of organs.

The next step taken in this country was the introduction of the "Required Request" laws. As of 1992 they had been introduced and passed in forty-six states, including Washington, DC. The law requires hospital personnel to approach the family of suitable donors and to inform them of their choices with regard to organ and tissue donation. In 1986, the United States Congress made all hospitals' eligibility to receive Medicare reimbursement contingent upon the existence of protocols for informing families about the option of organ donation. The United States Department of Health and Human Services implemented the legislation as of March 31, 1988. These steps are also required of hospitals by the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO). The long term impact or effectiveness of the programs and the legislation is still unclear. Compliance as far as we can tell is fair, and improving. There is a statistically significant increase in the number of tissue donors since this program was introduced, as well as a marginal increase in the donation of organs.

Donation levels still remain well below where public opinion polls suggest they could be. Sixty-eight percent of those surveyed were willing to donate a deceased relative's tissue and/or organs; forty-five percent were willing to donate their own tissue and or organs.[223] Certainly there are those who, for whatever reasons, do not wish to donate tissue from the body of their loved one. It is also a difficult time for the family, and awareness of this can make the request difficult for the staff member who must ask. It seems reasonable that those who are responsible for making the required request for organ and tissue donation should be professionally trained, although, few of them are.[224]

Many professionals in the field believe the use of living donors to be the most promising alternative for increasing the supply of organs. This belief is only made stronger by the fact that the recipients of tissue and organs from living donors boast the best long term patient survival. Many centers and surgeons prefer harvesting from living donors to using cadaveric organs.[225]

Risk

Danger posed to the donor is the main concern of the opposition. Risks involved for the living donor seem small: a mortality rate of less than one tenth of one percent; major postoperative complication rate of less than three percent for living kidney donors. Clearly, the statistics also show that the endeavor is not entirely risk free.[226]

---

[223] UNOS Newsletter, June 1993.

[224] A.L. Caplan, "Assume Nothing: The Current State Of Cadaver Organ And Tissue Donation In The United States," Journal of Transplant Coordination 1 (1991), pp. 78-83.

[225] Priester, "Organ Transplantation," ibid.

[226] Priester, "Organ Transplantation," ibid.

The key here is the question of what is an acceptable ratio of risk for no direct benefit? By current legal and bioethical standards, it remains in the hands of the donor, in general, to decide.[227]

Coercion

Coercion is another major concern. How is the family member allowed to decide? Is he or she solicited in front of the family? Is he or she allowed to consult another physician? What would the family response be to a refusal? All of these questions indicate that an uncoerced decision may be nearly impossible.[228]

Informed Consent

In the arena of experimental procedures the issue is over the true meaning of informed consent. This is the issue for many of the newer partial organ procedures: a lobe or portion of liver, lung or pancreas. Can a parent, donor, give informed consent as the proxy for the child, recipient?[229]

---

[227] A. Spital, "Living Organ Donation: Shifting Responsibility," Archives of Internal Medicine 151 (1991), pp. 234-235.

[228] A. Spital, M. Spital, "Kidney donation: Reflections," American Journal of Nephrology 7 (1987), pp. 49-54.

[229] P.A. Singer, M. Siegler, P.F. Whitington, et al, "Ethics Of Liver Transplantation With Living Donors," New England Journal of Medicine 321(9), 1989, pp. 620-622.

Additional complications arise with the introduction of unrelated donors. Should the conditions under which people are allowed to volunteer to undergo some degree of risk to help save another remain the same? Even for minors? Some point out that there is the exact same risk, and in many cases the exact same motivation for becoming a donor; however, there is an easier feeling about allowing someone to take on risk for a family member, than for a stranger. Promising results only makes the decisions that much more difficult. Only a small number of centers at this point are willing to do a harvest procedure involving an unrelated donor.

With shortages being what they are in most subgroups of organ and tissue transplantation, there is an increasing number of questions about the methods used to make decisions relating to this invaluable commodity, how to procure the organs, how to distribute them, who should perform transplant procedures, and who should pay for the procedures. The University of Minnesota's Center for Biomedical Ethics has compiled a more complete list of questions being discussed and debated in the classrooms, hospitals, and elsewhere,[230] which is reproduced below:

---

[230] Reinhard Priester, Editor "Organ Transplantation," The Center for Biomedical Ethics, University of Minnesota, Revised September 1993.

Unfolding Issues for Organ Transplantation

Procurement

Should supply of organs be increased by expanding number, type of potential donors?

Should aborted fetuses, anencephalic infants or patients in a permanent vegetative state be used as donors?

Should xenographs be used for transplants into humans?

Should organs be procured from non-heart beating cadaver donors(NHBCD)?

Should artificial organs be further developed to replace living organs?

Should living donations be expanded?(to include partial lung liver pancreas)

Should the supply of organs be increased by changing the current procurement system?

Should government expand its role?

Should monetary incentives be provided to potential donors?

Should the basis of procurement shift from "required request" to "presumed consent" where organs would routinely be harvested from cadavers unless the individual or family members objected?

Distribution

What standard criteria should be used to allocate organs?

Should standard criteria be applied at a national level, a local or regional level, or by individual transplant centers?

Should patients in greatest need of a transplant receive priority, i.e., should the sickest go first?

Should the use of artificial organs as a bridge affect selection of transplant recipients?

Should retransplantation be controlled?

Should foreign nationals have equal access to organ transplants at United States hospitals or should Americans have priority?

What should be the role of the media in distributing organs?

Performance

Should the number of hospitals performing organ transplants be restricted, e.g., by designating certain hospitals "centers of excellence"?

Should transplant success rates, number performed, or other measures of minimal levels of skill be used to designate hospitals as "centers of excellence"?

Payment

Who should decide the experimental/therapeutic status of organ transplants?

Should organ transplant coverage be mandated of all health insurance plans?

Should transplants be available to all people regardless of ability to pay?

Should government programs or insurance pay for immunosupression and related non-hospital costs for organ transplants?

In reviewing the literature and the issues that have led up to this point in the field of biomedical technology relating to transplantation, one can hardly find any significant period of time in which the scientists, doctors, and ethicists have not argued the relative risks and benefits of soliciting kidneys from living relatives. While making such requests might be advantageous to society, it undoubtedly takes an emotional and psychological toll on the entire family, and particularly on the members asked to donate.

Before 1979, the statistics showed poor results in transplantation graft survival rates with unrelated cadaver kidneys. This was the perspective that made the intra-family transplants look so very promising with a success rate up to thirty percent higher. With the introduction of cyclosporin steroid therapy in 1979, there are reports of success rates as high as seventy-five percent. Some even reported up to ninety-percent in studies using randomly matched organs coming from unrelated donors.[231]

---

[231] Thomas E. Starzl, "Will Live Organ Donations No Longer Be Justified? Technology Alters An Ethical Debate," The Hastings Center Report, Volume 15, Number 2 (April 1985), p. 5.

Living Donation

The legal basis for a living-donor nephrectomy was established in Massachusetts, in 1954. There, a decision was handed down concerning identical twins. The judge ruled that the overall loss of a twin sibling to the healthy twin, including psychological repercussions, was greater than the mere loss of a kidney to the healthy twin. The same reasoning was again used in later court cases, even cases involving a husband and wife who were not blood-related. The aforementioned court decision resulted in the first successful transplant involving identical twins as the donor and recipient, at the Peter Bent Brigham Hospital in Boston.[232] Later, in 1959, we find the first successful transplant between non-identical twins.[233]

The opposition and the skeptics still look closely and question the true impact and relevance of the physical and emotional factors. It is difficult to make a blanket decision to allow this potentially life-saving procedure in light of the statistics on the risk side of the argument. An estimated twenty donors have died at good, reputable institutions. That means that twenty healthy individuals came into the hospital of their own choosing and underwent elective surgery for the physical benefit of another person and with only psychological benefit to themselves, and died as a direct result. The morbidity rate at all of the centers that do significant numbers of these procedures is surprisingly, and distressingly high.[234]

At the University of Minnesota Transplant Center, a 1974 study reported a twenty-eight and two tenths percent complication rate.[235] Most of the reported complications were in fact minor. Of the reported cases at this center there were four with major complications: In three of these cases the donor actually developed the same disease as the organ recipient.

---

[232] Starzl, "Will Live Organ Donations No Longer Be Justified?...," ibid.

[233] Starzl, "Will Live Organ Donations No Longer Be Justified?...," ibid.

[234] Starzl, "Will Live Organ Donations No Longer Be Justified?...," ibid.

[235] Starzl, "Will Live Organ Donations No Longer Be Justified?...," ibid.

In view of these reports and the possible outcome in any given situation, is it ever ethical to encourage relatives to donate organs? Emotional pressure, coercion, persuasion, fear of surgery, concerns about the future, resentment toward the recipient, family pressure, whether it exists or is only perceived, all play a crucial role in the decision making process, and take away from the ability of the individual to say no. "In our Judeo-Christian society, with our self-sacrificing work ethic, it may take more courage to say no than to donate."[236]

Without a doubt there are tremendous benefits to the donor, which include but are not at all limited to the benefit of knowing that the donation is helping others, the donor often feels happier, and better about his or herself, and the feeling that his or her action is of benefit to society. It is this feeling that the donor is contributing to the greater good of society that society points to when it allows these altruistic acts. Our obligation to help another human being live is probably the greatest of all of the motivational factors. It is one that is admirable and even encouraged, provided the risks of doing so are minimal.

The 1954 and 1959 legal decisions are based upon clinical evidence. It was a combination of the results of transplants involving unrelated cadaveric organs and trials involving organs from unrelated living donors. What was relevant was not just the fact that these were successful, but the fact that the procedures involving living donors were so dramatically more successful than the others. The same logic would no doubt be applicable and persuasive today if the statistical data were the same; however, it is not. The statistics for transplantation successes and the difference between the success rates for cadaveric organs and organs harvested from living donors may no longer be significant. When the facts entered into evidence change, the decision that is reached using the same logic may also change.

---

[236] Starzl, "Will Live Organ Donations No Longer Be Justified?...," ibid.

In order to redefine the ratio of successes between cadaveric and living donor organ transplants, it is important to determine whether these success rates are going to be consistent over time. The issue of supply and demand also needs to be addressed. If the numbers are going to fluctuate or change, that too needs to be taken into account. The statistics suggest that the number of donors is growing slowly as the public becomes more knowledgeable and as harvesting procedures become increasingly routine and more safe.

Here, too, the numbers are only relevant with regard to the ratio of donor organs available for transplant to the number waiting for organs. As long as the ratio remains so unbalanced, the need for organs will warrant some added risk taking. Whether or not that added risk will include the use of living donors is a question that will fall in this category, but will then lead us to more questions about the impact and possible consequences to all parties involved, including the donor, recipient, other family members, and the doctors.

In any event, the numbers are changing constantly, and the ratios are in some places are changing. The questions involved in making this difficult decision need to be re-addressed on a periodic basis in light of new numbers, and current vital statistics from UNOS and others.[237]

Voluntary Risk

The question of whether to put a person at risk is certainly not isolated to this issue. In any risk associated situation there are certain factors which are taken into account before putting a person's life on the line.

The accepted approach to these situations involves asking the following questions about allowing a person to be at risk:[238]

---

[237] Starzl, "Will Live Organ Donations No Longer Be Justified?...," ibid.

[238] James Dwyer, Elizabeth Vig, "Rethinking Transplantation Between Siblings," Hastings Center Report 25, Number 6 (September-October 1995), pp. 7-12.

1) Has the doctor received informed consent? This is the most significant question. The doctor must have the informed consent of the person before he or she can proceed. The question that could prevent proceeding any further is whether or not the person in question is truly capable of giving informed consent at the present time, with the situation at hand, or whether there are circumstances within the family systems which would prevent the person from answering the question freely, thereby eliminating the possibility of acquiring informed consent.

2) What factors might be involved in the situation that could play an influential role in the decision making process? Substituted judgment can replace a person's logical thinking, and can play a role in blinding the decision maker, and lead to a poor decision. The problem, however, is that substituted judgement may not accurately represent the patient's thinking.

3) For each procedure the question should be asked, is this procedure in the best interest of the person? This applies to the harvest procedure for the donor, and the transplant for the recipient. In any given situation, the impact of the procedure on the donor must be weighed and looked at very carefully. Clearly the procedure is meant to benefit the recipient, but at what cost to the donor? The question here is not yet whether the risk to benefit ratio is an acceptable one, but rather how great is the risk to the donor. Is this a possibly acceptable risk? If the answer to this question is yes, then the risk to benefit ratio enters into the picture only then.

Competence & Consent

Certainly, it seems clear that young children are not competent to consent to tissue transplantation.[239] Therefore, in these cases, as well as other cases in which the patient is determined by the physician or by a court to be incompetent to make medical decisions in their own interest, the procedure must be justified in terms other than informed consent. The issue is further complicated when the potential recipient and the potential donor are both young children. In these cases there is without a doubt a clear and present danger that the parents of the children are biased and not thinking about the good of the one and the good of the other, but rather about the greatest good for the overall family unit. The danger here is that just as a parent might be willing to voluntarily undergo extreme risks in order to attempt to save a child, there is a concern that the same motivation might cloud one's judgment to the point that a parent might inadvertently put a healthy child in grave danger.

Some transplantation programs recognize the problematic possibilities generated by this situation and have required that an impartial child-advocate be appointed for the donor.[240] Parents have a clear conflict of interest. It is certainly in the best interest of each person involved that each young child has a representative to look out for the interests of that child alone. Clearly the input of parents would be taken into account in the final decision making process with the doctor, but this way an objective assessment of the situation can be made on behalf of the young person, and an advocate whose only bias is to protect the safety and well-being of that young child.

---

[239] Dwyer, "Rethinking Transplantation Between Siblings," ibid., p. 9.

[240] Melvin Levine, Bruce Camitta, David Nathan, et al, "The Medical Ethics Of Bone Marrow Transplantation In Childhood," Journal of Pediatrics 86 (1975), pp. 145-50; Fredric Serota, Charles August, Alice Tuohy O'Shea, et al, "Role Of A Child Advocate In The Selection Of Donors For Pediatric Bone Marrow Transplantation," Journal of Pediatrics 98 (1981), pp. 847-50.

The above examples use the term "young child" and not the word "minor." This usage is intentional. The definition of the term is flexible, according to the situation and the specific needs of the donor or recipient. Just because someone is a minor, does not mean that that person is not competent or capable of giving informed consent. Likewise, the fact that an individual is no longer a minor according to the law does not make that person automatically capable of giving informed consent.

An adult is usually granted the benefit of the doubt until that person does something which demonstrated an inability to provide informed consent. A minor is assumed by a physician to have the potential for informed consent. Physicians discuss a diagnosis and prognosis with a young person to determine the level of understanding and sophistication, and the competence of the young person to give informed consent.

Informed Consent

Many transplant procedures are still categorized as experimental, meaning volunteers make informed choices of their own free will about whether they wish to participate. Free choice requires adequate time to think it over and a suitable environment for decision making. No coercion or duress may be brought to bear, or else the decision is not in fact a free choice. The donor must comprehend all the relevant, reasonable facts about the proposed procedure.[241]

---

[241] Arthur L. Caplan "Organ Transplants: The Costs Of Success, An Argument For Presumed Consent And Oversight," The Hastings Center Report (December 1983), pp. 23-32.

It is certainly odd to think of kidney transplantation as experimental, given the high success rates and the long history of the procedure; however, it does not meet the ordinary definition of what constitutes therapy in medicine. No direct benefit is provided to the donor, other than maybe psychological or emotional rewards. Transplantation is almost never intended to benefit donor; it is solely for the benefit of the recipient. It is precisely this non-therapeutic status that justifies using the strictest standards available for deciding what values should govern informed consent.

No one would argue that the situations in which there is a life of a family member at stake can produce a very heated and stressful environment. Certainly it is reasonable to assume that a potential donor might need a cooling off period. It is reasonable to allow that person access to some privacy, time to consult with friends, relatives, experts, and all the necessary people for that person to feel confident and comfortable deciding whether to give informed consent.

It cannot be stressed strongly enough that it is equally important to respect the potential donor's right to say no. Once a donor has said no to a reasonable request, continuous approaches constitute coercion.[242]

Organ & Tissue Sales

Money could be an incentive for a poor person to participate in a drug trial. The connection living donation is the possibility of selling human organs or tissue as a living donor, or merely compensating a donor for pain and suffering. The legalization of organ sales could:

1) Increase the insufficient organ supply, and

2) exercise the right of the individual to use or dispose of his or her body as that individual sees fit.[243]

---

[242] Caplan, "Organ Transplants:...," ibid.

Many argue that individuals should have the right to sell their own organs and parts;[244]; however, we are all aware of the limits in place to protect us from causing harm to our own bodies, which include prohibitions against prostitution, third trimester abortion, and occupational health and safety risks, to name a few. Society limits the degree of risk people are allowed to undertake voluntarily through regulations, which include boxing health standards, requirement that football players don helmets, and people in moving automobiles are required to wear safety belts.

Around the globe there is legislation prohibiting organ sales, preventing the "degrading" of human living-donors, and protecting the lives of the potential living-donors, and legitimate organ donation. But this makes little sense logically. If the procedure is so dangerous and "degrading," the money should not make a difference; some ethicists would, nonetheless, outlaw sales and permit donation because:

1) There is a priceless psychological reward for the donor. This is an opportunity to be a real hero.

2) Generally the permission to donate is limited to close family members. Moreover, the law generally respects family decisions when it comes to saving a life. If a person is willing to donate an organ for a parent, spouse, child or sibling, it seems difficult to justify not permitting that person to trade the organ if it is not a match for the specific needs of the family member in need, through an organ broker or directly. Quality of consent, risk and motivation all play an equal role in making the decision in cases like this one.

---

[243] George J. Annas, J.D., M.P.H., "Life, Liberty, And The Pursuit Of Organ Sales," Law And The Life Sciences, The Hastings Report (February 1984), pp. 22-23.

[244] Amercan Journal of Law & Medicine 1 (1994), pp. 229-34.

The only ethical reason for prohibiting the sale of any non-vital organ is that the sale is an act of such desperation that "voluntary consent" is impossible. We have a moral obligation not to exploit the needs of the socially deprived or vulnerable. Poor people should not be induced by money to offer body parts or to convert their health into a salable commodity.[245]

But where there is a will, there is no stopping people from finding a way. The fact that the sale of organs is not legal does not mean that is does not happen, with or without the awareness of the participants that the sale is not legal.[246] There is a black market called "organ tourism," in which the patient arrange, through an "organ broker," to travel abroad and undergo transplant surgery.[247] Many of those involved argue that the restrictions on kidney sales are not ethical.[248] Where there is supply and demand, there is a natural tendency for a commercial set-up to arise. Some question whether this is really such a terrible thing.

---

[245] Bernard Dickens, "Control of Living Body Materials," Toronto Law Review 27 (1977), pp. 142, 165.

[246] Burlington Times (NJ), Sunday, December 25, 1983.

HAVING A PARTY?
Need music?
Call Mr. D's Discs.
Reasonable. 461-3783

HOLIDAY SPECIAL! -
$10 off Belly Dance Telegrams
by Sultana. Any occasion.
Female, Male or both.
461-5712

KEROSENE HEATERS -
10,400 BTU's, $49.99.
13,000 BTU's, $89.99.
19,500 BTU's, $89.99.
22,600 BTU's made by Kero
Sun, $119.99. For delivery
call 629-8132 or 728-4062.

KIDNEY FOR SALE -
from 32 yr. Old Caucasian female
in excellent health. Write to:
PO Box 654,
Wrightstown, NJ 08562.

Medical Testing, Trials & Compensation

Research companies pay for volunteers to participate in studies. We allow volunteers to undergo procedures, donate tissue, or potentially an organ, and ingest chemicals for money. We might disapprove of the same if the volunteers were not paid. They might also have a difficult time finding volunteers. Obviously, the money is a potentially coercive inducement that may overshadow any risk that might be involved. That is why, for example, prisoners are no longer allowed to volunteer for risky medical experiments. We do not believe that they can give truly voluntary consent.

If a government agency were the only agent for purchasing and distribution, using some type of a registry, and the criteria for distribution were set up in a way that was not based on wealth or social worth, this would address the concern about organs being transferred from the poor to the rich. The poor, however, would still likely serve disproportionately as sources of kidneys.

One of the central problems associated with setting up and using registries for living donors is the inability to protect confidential medical records to locate suitable matched donors, especially for renewable tissue, such as bone marrow. It is understandably difficult to protect the identity of a matched, potential donor in the hospital computers.

---

[247] British Medical Journal 313 (1996), pp. 1282-3; Lancet 348 (1996), p. 1374.

[248] J. Richards, "Nephrarious [Sic] Goings On: Kidney Sales And Moral Arguments," Journal of Medicine & Philosophy 21 (1996), pp. 375-416.

Since the sale of organs and tissue is prohibited, the next logical question had to be asked, what about gift giving to the donor after the surgery is over? As always there are multiple opinions; donation and gift-giving to the donor afterwards is being debated.[249] The prevailing opinion is that leaving the status of living donation as a charitable act promotes a better image for organ donation. In general, however, one could argue the public might not see much difference.

The question of organ and tissue sales should not be one based on public relations, but rather on the ethical and moral standards of the medical community and the leaders of the modern world. There is, however, an awareness in the community of transplant professionals that the public perception and faith in the organ and tissue donation systems around the world and how they function does have a direct impact on people's willingness to donate their own organs and tissue as well as that of loved ones. With a positive public image, there is a better chance that more people will be willing to donate tissue and organs when the time comes.

Valid Informed Consent

There are various situations in which ethicists call into question the validity of informed consent. Giving informed consent could be for the purpose of becoming a living donor or participating in a research study of the effects of new drugs awaiting United States Food and Drug Administration (FDA) approval. One such situation is the case of a criminal confined to a penitentiary.[250]

---

[249] N. Gerrand, "The Notion Of Gift-Giving And Organ Donation," Bioethics 8 (1994), pp. 127-50.

[250] Robert L. Cohen. "A Prisoner In Need Of A Bone Marrow Transplant," Case Studies, Hastings Center Report (October/November 1987), pp. 26-7.

On the flip side of the issue is whether the prisoner is entitled to the same considerations as any other member of society, when it comes to consent and determining his future. Along with the loss of freedom and various other rights, should the convicted criminal also lose the right to some treatments? Should the prisoner be granted all of the best that the medical world has to offer, without regard for cost, with the compliments of the government and the taxpayers?

Currently a prisoner is entitled to the best medical care available, at the expense of the criminal justice department. A prisoner is not entitled to experimental therapies, nor is a prisoner capable of giving truly informed consent; therefore, inmates are not allowed to volunteer to be subjects in studies to earn extra money.

Speculative Biomedical Ethics

In addition to all of the journal articles which tell of the various research projects underway around the world and of cases and legal decisions, there are an equally staggering number of articles about bioethical issues and questions that arise with scientific progress into new areas of medical research and fields of treatments. Many of the subjects are connected, even if only tangentially, to the question of using living donors for organs and tissue transplantation. All of the following citations are taken out of digests of articles in the field of bioethics.[251]

Ethical issues are debated back and forth on many current biomedical issues, including that of organ transplants,[252] and there are also papers written and published specifically from a Jewish perspective.[253]

---

[251] Extracts from Eubios Ethics Institute Newsletter 1991-1994, Provided by Eubios Ethics Institute, <http://www.biol.tsukuba.ac.jp/~macer/index.html>.

[252] International Journal of Bioethics 7 (1996), pp. 195-8, 199-201.

[253] ASSIA: Jewish Medical Ethics III, Number 1 (1997), pp. 5-17.

There are guidelines and suggested procedures published for general consumption by groups like the World Health Organization, which endorsed a set of guidelines for human organ transplantation.[254] The United States Institute of Medicine has put together a set of guidelines,[255] and the United States Department of Health and Human Services has recently released new guidelines.[256]

Any factor that might eliminate the need for living donors is naturally relevant to the bioethical discussion. The allocation of organs and tissue might be refined to the point that there could be increased benefit, and fewer patients dying on the waiting list. The method used to prioritize the recipients for allocation of the limited number of organs available is constantly a subject of debate and discussion.

The availability of organs for donation is often discussed because there is always hope that some new alternative to the allocation system or to the need for human tissue or organs will save countless lives lost waiting for tissue or organs for transplantation.[257]

Allocation Of Scarce Resources

With the allocation of organs being controlled by medical criteria and a combination of contributing factors, there are those who feel that the criteria discriminate against the elderly unfairly. Some suggest that the elderly are likely to be poor candidates for transplantation due to their other unrelated health variables; nonetheless, some are calling for equal rights for older patients in kidney transplants.[258]

---

[254] Reproduced in Lancet 337, pp. 1470-1.

[255] Bulletin of Medical Ethics 121 (1996), pp. 3-4; Journal of the American Medical Association 276 (1996), pp. 589-90.

[256] Lancet 348 (1996), p. 953; New Scientist (September 28, 1996), p. 7.

[257] Lancet 343 (1994), pp. 484-5.

[258] Lancet 343 (1994), pp. 1169-70.

Similarly, there is a call for an end to apparent racial inequities in the allocation process.[259] When the issue of matching the donor to the recipient is factored into the equation, there is a direct causal relationship between the number of potential donors, referring here specifically to bone marrow donation, and the likelihood of finding a match. The likelihood is that the person in need of bone marrow would have the greatest chance of finding a match among people of similar ethnic and national decent. The greater the number of potential donors on the registry from a similar ethnic and racial background, the greater the chances of finding a match.

The inequity in the matching suggests that the most likely method of finding a match outside the family and existing registry is to appeal to the ethnic or racial community of the patient in need. If, therefore, Jewish people are statistically poor donors, this suggests that it could be difficult to find a match for a Jewish patient.

One article argues that people who have not had any transplants should come before those who have already had at least one.[260] Others think that those with the most critical need should logically get the first available organ. This, however, is not the way the system works, at least for the time being. The newest system is aimed at giving top allocation priority to patients with the best chance of surviving the operation, rather than those who are the sickest.[261]

---

[259] Journal of the American Medical Association 271 (1994), pp. 1402-3; See also Journal of the American Medical Association 271 (1994), pp. 1157-8; Lancet 343 (1994), pp. 971-2; See also Robert M. Veatch, "Equality, Justice, And Rightness In Allocating Health Care: A Response To James Childress," Barry S. Kogan, Editor, A Time To Be Born And A Time To Die: Ethics Of Choice, Hawthorne, New York: Aldine De Gruyter, 1991, Chapter 12, pp. 205-216.

[260] P.A. Ubel, et al, "Rationing Failure. The Ethical Lessons Of The Retransplantation Of Scarce Vital Organs," Journal of the American Medical Association 270 (1993), pp. 2469-74.

[261] Robin Estrin, "Sickest Must Wait For Transplants," Associated Press, Boston, Cincinnati Enquirer.

Alcohol Damaged Livers

There are many who question the morality of transplantation to patients with drug imposed injuries, such as alcohol damaged livers.[262] People suffering from alcoholic liver disease make up eighteen percent of all liver transplants and twenty three percent of all adult transplants. It's the number one reason for men to have a liver transplant, according to data from the United Network for Organ Sharing (UNOS). Many transplant centers have strict criteria for evaluating recovering alcoholics for transplantation, and nearly all require six months of closely-monitored abstinence before even putting a candidate on the waiting list.

Only four to six percent of the 15,000 to 20,000 people suffering from alcoholic liver disease receive transplants. In 1995, 730 of the 3,500 or so liver transplants in the United States were among that group, according to Steve Belle, an Epidemiologist from the University of Pittsburgh. Meanwhile the real issue at hand is that 8,000 people died waiting [for a liver transplant] while less than 4,000 people got livers in 1995.

The families of those on the waiting list and others pose the ethical argument that the system should not provide an organ for transplant to a patient suffering from a self-induced condition, while others, through no fault of their own, are dying, waiting for the same organs.[263] Still others argue that the system should not allow organ allocation to undocumented foreigners, known in the United States as illegal aliens.[264]

---

[262] Journal of the American Medical Association 266 (1992), pp. 213-4.

[263] Elizabeth Neus, "Transplant Priorities Questioned: Doctors: Are Livers A Public Resource?" Gannett News Service, Bethesda, MD, Cincinnati Enquirer, December 7, 1996. (According to Dr. Jorge Rakela, Liver Transplant Surgeon, University of Pittsburgh Medical Center)

[264] Cambridge Quarterly of Health Care Ethics , 4 (1995), pp. 229-38.

Mistakes & Negligence

A High Court judge in Great Britain rightly criticized a surgeon who transplanted a cancerous kidney into a patient, and waited seven months after the surgeon knew that the donor had cancer to tell the recipient.[265] Fortunately, the recipient survived; but this accident is just one of the possible dangers that could bring on complications.

In another widely publicized case in the United States, a celebrity was on the operating table when the doctor opened the patient up and realized that there was cancer in the cavity, and that with or without the organ transplant, the patient would not live for long. The organ was transplanted into the man, without regard for his cancerous condition. The public was outraged that this was allowed to occur, that an organ was wasted on a terminal patient, regardless of who that patient was.

Genetic Engineering

Discussions and tests are being conducted to determine how the cells in a body know what to do and how to behave. If this code is ultimately found and deciphered, the hope is that cells might potentially be erased, and then custom encoded according to specific needs. Results from the Proceedings of the National Academy of Sciences raise the possibility of treating diabetes by cell transfer and gene therapy. A modified cell from the pituitary gland was made to act as a pancreatic cell and to secrete insulin.[266] There is a significant hope that, if successful, the use of genetic and immune engineering of organs could play a major role in lessening the occurrence of rejection.[267]

---

[265] British Medical Journal 312 (1996), pp. 205-6.

[266] New Scientist (January 25, 1992), p. 29; Nature Medicine 2 (1996), pp. 824-6; Lancet 348 (1996), p. 466.

[267] Trends in Biotechnology 13 (1995), pp. 100-5.

Xenotransplantation

Scientists are working on and feel confident that they will be able to create organs genetically engineered for human needs and specifications within specially engineered animals. There are bioethics discussions going on about the genetic engineering of animals to provide organs for transplants.[268]

Fetal pig pancreas transplants into diabetic patients have shown that the grafted tissue can survive.[269] With the help of genetic engineering animals could be altered to specifically match the specific make up of human patients. Genetic engineering is another route to improving transplant graft survival.[270]

There are questions of ethical rules for using human beings and for using animals in the proposed procedures.[271] Some think it unethical to test procedures or genetically engineer animals to be killed for the purpose of furthering human biomedical knowledge and potentially saving human lives. There are ethicists and scientists who believe, to the contrary, that the it is better to test on animals and to kill animals in order to save human lives.

---

[268] Genetic Engineering News (February 1, 1994), p. 28.

[269] C.G. Groth, et al, "Transplantation Of Porcine Fetal Pancreas To Diabetic Patients," Lancet 344 (1994), pp. 1402-4; Science 266 (1994), p. 1323.

[270] Biotechnology 12 (1994), pp. 1054-5; W.L. Fodor, et al, "Expression Of A Functional Human Complement Inhibitor In A Transgenic Pig As A Model For The Prevention Of Xenogenic Hyperactive Organ Rejection," Proceedings of the National Academy of Sciences 91 (1994), pp. 1153-7.

[271] Science 266 (1994), pp. 1148-50; Trends in Biotechnology 13 (1995), pp. 100-5; See also Nature 379 (1996), p. 578; Nature Medicine 1 (1995), pp. 403-4; Biotechnology 13 (1995), pp. 737-8; Lancet 346 (1995), p. 107.

A new report was published presenting many of the issues involved in xenotransplantation at great length.[272] The report recognizes the potential benefit from xenografts, and says that the breeding of pigs for patients who need organs is ethically justified, rather than primates, which some think are so closely related to the human being that they should be treated similarly. The report also calls for the establishment of a committee to monitor the safety of trials.[273]

Fetal pig neural cells have been infused and survived in an experimental treatment of a Parkinson's disease patient.[274]

A pig liver was used successfully as a temporary life support in a United States man, whose liver suddenly failed due to hepatitis, while waiting for a human liver.[275] Another article also told of a successful pig liver transplant for emergency purposes into a human for ten days.[276] There are times when there are emergency situations which necessitate the use of extreme measures or experimental procedures, and these are some of them.

---

[272] Nuffield Council on Bioethics, Animal-to-Human Transplants, The Ethics of Xenotransplantation, 1996, ISBN 0-9522701-2-9.

[273] There have been several other reports on the subject; Bulletin of Medical Ethics 116 (1996), pp. 3-4; Science 271 (1996), p. 1357; Nature 380 (1996), p. 6; Nature Medicine 2 (1996), p. 378; British Medical Journal 312 (1996), pp. 651, 657; Lancet 347 (1996), p. 683; New Scientist (March 6, 1996), p. 4; T.B. Mepham, et al, "An Ethical Analysis Of The Use Of Xenografts In Human Transplant Surgery," Bulletin of Medical Ethics 116 (1996), pp. 13-9; Nature Biotechnology 14 (1996), pp. 698-9.

[274] Nature Medicine 3 (1997), pp. 350-3.

[275] Hastings Center Report 23 (2), p. 4.

[276] New England Journal of Medicine 331 (1994), pp. 234-7, 268-9.

One company pursuing pigs as transplant donors is Imutran (Cambridge, UK). It has the world's largest herd of transgenic pigs with genetically engineered organs.[277] A related research proposal using baboon bone marrow has been backed for an HIV trial.[278] The complete reconstitution of a mouse liver using the infusion of healthy rat cells was also reported.[279]

Imutran has predicted the first pig to human kidney transplant will take place within a year, following test trials in monkies.[280] There are methods being developed to overcome hyperacute xenograft rejection reactions.[281]

Trials involving pig heart transplants into rhesus monkeys, with an average survival in ten monkeys of forty days, was considered encouraging news. While it may sound like a short time to call successful, the initial goal was two days survival.[282]

There have been claims of a pig heart transplant into a human in India, but the autopsy suggested "butchery" with some pig organs inserted into the body of a patient who soon died.[283]

The United States FDA is still considering the general issue of xenotransplantation,[284] as well as the uses of and tolerance for transplantation across xenogenic barriers.[285]

---

[277] Genetic Engineering News (June 1, 1995), pp. 8-9, 16.

[278] Nature 376 (1995), p. 204; Lancet 346 (1995), p. 369; Science 269 (1995), pp. 293-4.

[279] J.A. Rhim, et al, "Complete Reconstitution Of Mouse Liver With Xenogenic Hepatocytes," Proceedings of the National Academy of Sciences 92 (1995), pp. 4942-6.

[280] Bulletin of Medical Ethics 121 (1996), p. 3.

[281] Based on reshaping the foreign sugar molecules that cause much of this problem; Genetic Engineering News (September 1, 1996), pp. 1, 28.

[282] Lancet 346 (1995), p. 766.

[283] Canadian Medical Association Journal 156 (1997), pp. 553-5.

[284] FDA Consumer (December 1996).

Human xenotransplants have been banned in Great Britain,[286] according to a government report from the Advisory Group on the Ethics of Xenotransplantation. The report, Animal Tissue Into Humans,[287] has recommended that no animal tissue be transplanted into humans at the present time.[288]

One of the fears of cross-species transplants is the introduction of new viruses,[289] which is also a concern with human tissue.[290] Scientists are warning that the dangers of Cytomegalovirus (Animal virus unknown in the human population) transfer are so great as to possibly wipe out large segments of the population.[291]

Artificial Tissue & Organs

One possible alternate solution proposed to deal with the lack of available human organs for transplant is the use of artificial tissue and organs, a highly controversial matter in the ethics community. The ethics of organ replacement and artificial organs opens up a whole new set of questions and issues.[292]

---

[285] Nature Biotechnology 15 (1997), pp. 26-7, 48-53, 196-204, 235-8.

[286] Nature Biotechnology 15 (1997), p. 214.

[287] Animal Tissue Into Humans, London: The Stationary Office (formerly HMSO), 1997, ISBN 011-321866-4.

[288] Bulletin of Medical Ethics 124 (1997), pp. 6-7; Science 275 (1997), p. 473; Nature 385 (1997), pp. 279, 285; New Scientist (January 18, 1997), p. 6; British Medical Journal 314 (1997), pp. 242, 247.

[289] Nature 376 (1995), p. 8.

[290] Lancet 345 (1995), pp. 69-74.

[291] Lancet 346 (1995), pp. 1380-1.

[292] R. Kielstein, H.M. Sass, "From Wooden Limbs To Biomaterial Organs: The Ethics Of Organ Replacement And Artificial Organs," Artificial Organs 19 (1995), pp. 475-80.

The medical world would be assured a steady supply of blood if they were able to create some kind of blood substitutes.[293] Artificial blood technology is under development, but not yet available.[294] Monkey tests by Imutran suggest human trials for artificial kidneys will soon begin.[295]

A company called Xenogenex has awarded a US$1.85 million grant to a research team at St. Louis University to develop the synthetic bio-liver.[296] There have been experiments in which rats were kept alive using an "artificial liver," containing live liver-cells as a bioreactor.[297] At this point in the development of the liver substitute, it may be successful on an emergency basis for short term life support; but as of yet, it is not known to be a viable replacement for a human organ. This possibility raises new hopes for liver transplants in the future.

In the United States a patient was kept alive for fourteen hours using a similar type of artificial liver, after her liver was removed, awaiting a donor liver, at the Cedars-Sinai Medical Center. The United States company Cellex is moving forward with clinical trials of its bio-artificial liver as well.[298]

---

[293] Nature Medicine 3 (1997), p. 10.

[294] The formula is based on pyridoxylated hemoglobin conjugate; Genetic Engineering News (May 1, 1995), pp. 1, 34.

[295] New Scientist (July 26, 1996), p. 10.

[296] Genetic Engineering News (January 15, 1994), p. 1.

[297] New Scientist (November 23, 1991), p. 26.

[298] Genetic Engineering News (September 1, 1993), pp. 1, 12, 21.

Artificial heart research has been going on for a long time and has received much publicity over the years.[299] The implantation of an artificial heart has been an issue because the removal of the heart before implanting the artificial heart is seen as killing the patient if the new heart does not work, and this is illegal as well as immoral. The entire discussion would be much less critical if the need were not so critical.

On April 3, 1996, a small aircraft crashed into the sea in Scotland carrying a donor liver. The pilot intentionally crash-landed in the sea to avoid damage to the liver, and escaped. A diver recovered the liver, and it was used to save the life of the recipient. This event was reported to make us think about the waste of lives caused by the absence of donor tissue and organs.

How many people are aware of just how much good comes from organ donation and transplantation? Ninety percent of the patients who received a transplant achieved the quality of life that they expected one year after, and fifty to seventy-five percent returned to work.[300]

The organ donation rate in Australia is the lowest among the major developed countries permitting donations.[301] In 1992, in Australia, there were 105 heart transplants, nineteen heart/lung transplants and thirty lung transplants, with one year survival rates of ninety-one percent, seventy-six percent and eighty percent, respectively.[302]

---

[299] Lancet 347 (1996), p. 960.

[300] M. Okada-Takagi, T. Williams, "The Quality Of Life In Transplanted Patients And Their Thoughts About Ethical Issues," Bioethics News 12 (3), pp. 12-30. (A paper looking at the quality of life in liver transplant patients in Melbourne)

[301] Lancet 341, p. 1530.

[302] The Bulletin, a supplement to Newsweek (March 30, 1993), pp. 1-35.

As always, experts in the field are searching for creative and new ways to increase organ donation rates.[303] If the rates could be increased substantially enough, they could some day eliminate the need for living donors. This would be ideal.

Sharing Scarce Resources

James F. Childress, of the University of Virginia, asserts that there is a clear responsibility "to evaluate new medical procedures, in terms of the greatest good for the greatest number."[304] He predicts "the scarcity of organs [and tissue] will probably remain a problem for the indefinite future." Recognizing that demand may always exceed supply, there needs to be a allocating organs and tissue, which maximizes the actual supply.[305]

One suggestion to maximize benefit from available organs and tissue is the use of single lung transplantation for pulmonary emphysema.[306] Single lung transplants work, and potentially double the number of patients who can be treated.

Partial organ transplants are another way of maximizing the number of people who can benefit. Doctors are testing the use of cell infusion into or in place of diseased parts of the liver as an alternative to some liver transplants. There have been limited successes thus far in mouse studies.[307]

---

[303] Canadian Medical Association Journal 150 (1994), pp. 1401-6; British Medical Journal 308 (1994), p. 1512; British Medical Journal 309 (1994), p. 341.

[304] James F. Childress, "Fairness In The Allocation And Delivery Of Health Care: The Case Of Organ Transplantation," Barry S. Kogan, Editor, A Time To Be Born And A Time To Die: Ethics Of Choice, Hawthorne, New York: Aldine De Gruyter, 1991, Chapter 11, pp. 179-204.

[305] See Childress, "Fairness In The Allocation And Delivery Of Health Care:..." for a full discussion of controversial criteria for transplantation, risk, allocation, and utility.

[306] Lancet 339, pp. 216-7.

[307] Science 263 (1994), pp. 1149-52.

A system for improving local use of kidneys by HLA[308] matching,[309] and liver tissue type matching,[310] are proposed methods of increasing the success rate of transplants, and minimizing waste due to failed grafts; although, another study found that exact kidney HLA matching increases survival, measured at five years, by only four and four tenths percent.[311]

Overcoming rejection could limit the number or organs needed for transplant.[312] Methods of reducing rejection continue to be developed,[313] including antioxidant drug therapies.[314] There are other studies underway hoping to prove that doctors can prevent graft rejection of unmatched organs using antibodies.[315]

Methods to lower the rejection rate of bone marrow transplants by transplanting more cells are looking promising;[316] and pre-transplantation blood transfusions have been shown to increase transplantation tolerance.[317]

---

[308] HLA is one method of Tissue Typing to determine compatibility of tissues from a donor and a recipient prior to transplantation. (Charles F. Chapman, Medical Dictionary for the Non-Professional, Barron's, New York, 1984.)

[309] New England Journal of Medicine 331 (1994), pp. 760-4, 803-5.

[310] Journal of the American Medical Association 272 (1994), pp. 848-9.

[311] P.J. Held, et al, "The Impact Of HLA Mismatches On The Survival Of First Cadaveric Kidney Transplants," New England Journal of Medicine 331 (1994), pp. 765-70.

[312] Nature Medicine 3 (1997), p. 11.

[313] New Scientist (September 7, 1996), p. 20; Science 273 (1996), pp. 109-12.

[314] Science 270 (1995), pp. 234-5.

[315] Science 282; Science News 141, p. 132.

[316] Immunology Today 16 (1995), pp. 437-40; See also Nature 377 (1995), pp. 576-7.

[317] New England Journal of Medicine 325, pp. 1210-3, 1240-2.

Brain Death & Artificially Maintaining Organs

There are restrictions in some parts of the world which limit the availability of organs and tissue for transplantation. "A law recognizing brain death takes effect today in Japan, allowing doctors here to perform heart, lung and liver transplants that were not possible previously. Japan had been one of the few nations that did not recognize death when the brain ceased activity but the heart and other organs were still working with machines. That made transplants of certain organs illegal -- those that deteriorate rapidly once the heart stops."[318]

From the case of a brain dead donor who might still being considered alive, the complete opposite would be the possibility that a living person could donate vital organs, in essence committing suicide, in order to save the life of someone else. Obviously this is not legal nor ethical in the United States nor anywhere else in the developed world. In the United States, on a similar note, "Dr. Jack Kevorkian plans to expand his assisted suicide campaign by donating organs of some of his patients after their deaths."[319]

Ethicists around the world discussed a German case in which a dead woman was sustained on life support as a fetal incubator.[320] Questions here revolve around the idea of keeping a person's systems functioning, in order to maintain the viability of a system or an organ, for the benefit of another. This type of care can maintain the viability of organs for transplant, or as in this case, can maintain the woman's reproductive system as an incubator for the fetus within her womb. Some saw this as tremendously disrespectful to the deceased woman. Others thought that this was an admirable length to go to in order to try to save this unborn child.

---

[318] "Law Aids Organ Donations," Associated Press, Tokyo, Cincinnati Enquirer, Thursday, October 16, 1997.

[319] "Kevorkian To Donate Suicide Patient Organs," Associated Press, Detroit. Cincinnati Enquirer, Thursday, October 23, 1997.

[320] Hospital Ethics (January/February 1993), pp. 13-4.

An antifreeze solution[321] has been developed for preserving organs for transplantation.[322] The fluid has been applied to rabbit tissue, which is very close to human tissue in characteristics. It still requires high pressure to prevent the freezing of any water present; the solution presently consists of propylene glycol, formamide and dimethylsulphoxide, but is soon expected to be suitable for use at lower pressures.

Similarly, there is an effort being made on the cryogenic front to preserve frozen organs on a long term basis. The possibilities are almost endless, and the technology should soon be possible.[323]

Reproductive Tissue & Custody Battles

There are all kinds of legal and ethical issues that arise out of the smaller donations as well. Sperm and eggs are both among the products which are harvested and then implanted into other women in reproductive assisting procedures. Questions have come to the surface regarding the status of a donor in situations where the donation is used to create a separate, new life. Is the donor of sperm or eggs, by virtue of that donation, a parent? What legal status does the donor hold?

"A woman who gave birth to twins conceived with her husband's sperm and her sister's eggs is the twins' legal and natural mother, a magistrate ruled in what may be the first case of its kind in Ohio."[324]

The father cited a 1994 Summit County case involving a couple whose son, conceived using their egg and sperm, was carried to term by the woman's sister. The court in that case ruled that the legal mother was the one who provided the egg.

---

[321] Cryopreservant

[322] New Scientist (July 31, 1993), p. 17.

[323] New Scientist (December 2, 1995), p. 15.

[324] "Mom Wins Ruling On Egg-Donor Twins: Custody Fight Poses New Ground For Court," Associated Press, Painesville, Ohio, Cincinnati Enquirer, Friday, October 24, 1997.

Here we are faced with a new question: what is the status of the woman who provides her womb as the incubator for a couple, carrying the wife's egg, impregnated by the husband's sperm?

"Rebecca Dresser, a professor at Case Western Reserve University Law School and Center for Biomedical Ethics, said that the ruling seemed consistent with similar cases involving in vitro fertilization (IVF)."[325] There are often-times touchy situations and conflicts involving intra-family transplants.[326]

High Risk Donation & Limits

Study results show that a parent to child kidney transplant often has a higher rejection rate than previously thought.[327] This impacts the risk to benefit ratio, and could change the ethical status of the procedure.

There are also terribly difficult decisions that bring pain, suffering and even death, which the survivors must be able to live with for the rest of their lives. One article told of a mother's decision not to attempt liver transplantation for a dying baby.[328] The paper provides some insights on the spiritual values of Canadian Indians, some of which may be shared by many people around the world.

---

[325] "Mom Wins Ruling On Egg-Donor Twins:....," ibid.

[326] J. Dwyer, E. Vig, "Rethinking Transplantation Between Siblings," Hastings Center Report 25 (1995), pp. 7-12.

[327] Journal of the American Medical Association 271 (1994), pp. 1716-7.

[328] L. Paulette, "A Choice For K'aila," Humane Medicine 9, pp. 13-7.

Among the more recent, risky experimental procedures is the living liver donation.[329] Unlike blood, bone marrow or kidney donations, liver tissue is not a regenerative tissue. If the liver reacts negatively and fails, it could be fatal to the donor; the use of the liver tissue infusion is still a very new and experimental procedure. Given the data available at the present time, the risk to benefit ratio militates against allowing this procedure in most cases. Of the few cases mentioned in the literature, they all involved a parent donating a section of liver to a child.

Creating A Donor

There are cases where a parent is not a suitable donor for the needs of a child. More often than not in these cases the child needs bone marrow, which requires an almost exact match to be successful. In desperate situations, many parents have tried having another child hoping that that child will be a match, and can become a bone marrow donor for the existing sick child.[330] Some people find this to be a reprehensible act and can not understand why it is allowed. Still others take issue with any and all childhood donations.[331] While it is accepted and done in many situations, wide use of parental discretion is strongly encouraged.

Parental Donation

Transplantation is difficult for the body to handle at any age, but especially at a young age, the procedure itself can be treacherous.

---

[329] Cambridge Quarterly of Health Care Ethics 3 (1994), pp. 602-621.

[330] Journal of Medical Ethics 18 (1992), pp. 125-7.

[331] L. Delaney, et al, "Altruism By Proxy: Volunteering Children For Bone Marrow Donation," British Medical Journal 312 (1996), pp. 240-3; L.F. Ross, "Justice For Children: The Child As Organ Donor," Bioethics 8 (1994), pp. 105-26.

> In a desperate attempt to save the life of a nine-year-old Minnesota girl whose lungs had failed, doctors first transplanted part of her father's lung and, when that was not enough, tried to transplant part of her mother's lung... while still on the operating table, the girl, Alyssa Plum, died.[332]

Emotionally Related Donors

Spouse-donated kidneys are found to have high graft survival rates despite low graft compatibility.[333] The high rates of survival are attributed to the healthy state of the donors.

"Parents want to donate even when doctors are unwilling to do the operation because they [the doctors] think it would be futile or that there is too much risk for the donor."[334] This unacceptable risk led Dr. Thomas Starzl, the renowned surgeon who pioneered liver transplants,[335] to announce that he would no longer perform transplants from living donors. In 1987, he explained his decision:

> The death of a single well-motivated and completely healthy living donor almost stops the clock world-wide. The most compelling argument against living donation is that it is not completely safe for the donor.[336]

---

[332] Gina Kolata, "Lungs From Parents Fail To Save Girl, 9, And Doctors Assess Ethics," The New York Times, May 20, 1991, A-11; Prouser, "Chesed or Chiyuv?" p. 5.

[333] P.I. Terasaki, et al, "High Survival Rates Of Kidney Transplants From Spousal And Living Unrelated Donors," New England Journal of Medicine 333 (1995), pp. 333-6, 379-80.

[334] Gina Kolata, "Lungs From Parents Fail To Save Girl, 9, And Doctors Assess Ethics," New York Times, May 20, 1991, A-11. (Quoting Pediatrician and Ethicist Dr. John Lantos.)

[335] Russel Scott, The Body As Property, Viking Press, 1981, p. 20.

[336] Christine Gorman, "Matchmaker, Find Me A Match," Time, June 7, 1991, p. 61; Prouser, "Chesed or Chiyuv?" p. 5.

Nevertheless, medical reliance on living donors continues to mount. In August of 1995, the New England Journal of Medicine reported, "increasing numbers of persons donating kidneys to their spouses." Citing evidence that "the survival rates of these kidneys are higher than those of cadaveric kidneys," the article concludes that "spouses are an important source of living-donor kidney grafts."[337] Such a trend in the field of transplantation places tremendous pressure on the relatives of prospective organ recipients to imperil themselves by serving as donors. In 1994 alone, 2,980 kidney transplants were performed using living donors.[338]

The New England Journal of Medicine article provides separate statistical data for kidney donation by husbands to wives based on whether the wife had ever been pregnant. The success rate for transplantation into women who had previously been pregnant is seventy-six percent, as opposed to eighty-seven percent for women who had never been pregnant.[339]

---

[337] P.I. Terasaki, et al, "High Survival Rate In Kidney Transplants From Spousal And Living Unrelated Donors," New England Journal of Medicine 333, Number 6, August 10, 1995, pp. 333-336.

[338] UNOS Newsletter, April 1995; Prouser, "Chesed or Chiyuv?" p. 5.

[339] P.I. Terasaki, et al, "High Survival Rate In Kidney Transplants From Spousal And Living Unrelated Donors," New England Journal of Medicine 333, Number 6, August 10, 1995, pp. 333-336.

It must be assumed that among the former are a significant number of mothers with young children. Spousal donation in such cases means that both parents, donor and recipient,-- and, therefore, their children's well-being, Terasaki adeptly points out, -- are placed at mortal risk. Yet, an accompanying editorial asserts that there is "no ethical objection to using emotionally related (spousal) donors."[340] Perhaps there are no objections in a perfect situation, without additional factors to work into the risk-benefit ratio; however, in a case where parents are both taking on such a degree of risk, there are some who would take issue with the claim that there is "no ethical objection."

Risk For Possible Benefit

The more difficult decisions are about transplants that are not as safe and sure as the kidney transplants. The most difficult transplant to graft is certainly bone marrow, since it requires an almost perfect match to succeed. The bone marrow has great potential to treat a variety of diseases. There are now doctors who are testing and advocating the use of bone marrow transplantation for sickle cell disease,[341] and to treat multiple myeloma.[342]

---

[340] Jean-Paul Soulillou, MD, "Kidney Transplantation From Spousal Donors," New England Journal of Medicine 333, Number 6, August 10, 1995, pp. 379-380; Prouser, "Chesed or Chiyuv?" p. 5.

[341] New England Journal of Medicine 325, pp. 1349-53; Bulletin of Medical Ethics (December 1992), pp. 40-3.

[342] New England Journal of Medicine 325, pp. 1267-73.

Most of the matches for unrelated bone marrow transplants in the United States come from the National Bone Marrow Registry.[343] Many of the rest come from relatives. There are of course those who do not approve of the use of children for procedures such as marrow donation, and especially in an instance where a potential donor is not a full sibling. Some think that doctors should not allow bone marrow transplantation among half-siblings.[344]

Umbilical Cord Blood

In many ways genetically similar to the make up and function of bone marrow, umbilical cord blood and placental blood are potentially lifesaving donations as well, and like the donation of left-over tissue or organs after surgery, this donation involves no additional harvesting procedure; the material is already removed or expelled, and is usually discarded. There have been cases in which the patient was stuck without a match, and the doctors have tried treating the disease with an umbilical or placental infusion, with limited successes, including treating diabetes with these transplanted cells.[345]

---

[343] New England Journal of Medicine 328, pp. 593-602.

[344] W.J. Curran, New England Journal of Medicine 324, pp. 1818-9. (Considers an Illinois court case.)

[345] Scientific American (July 1995), pp. 50-8.

The use of umbilical cord blood is also a matter of debate. Some hope that it will become an option or replacement for various tissue transplants.[346] Others are concerned that it puts the poor at a disadvantage since they cannot afford the thousands of dollars to collect and bank the tissue. There is also a concern that those in need today will not get the tissue, if those who are willing to donate bank the blood for the future, just in case there is some need in the future. On the other hand, if the blood is donated and a newborn donor becomes sick, the child may die if the cord blood is no longer available and the child has a rare tissue type.

Ethically, one should consider the existing need that umbilical cord and placental blood could be filling now. The donor should consider the likelihood of the family needing that blood in the future. Is there family medical history which indicates there might be a need in the future? Some fear that the response of many new parents will be, "Because it is mine, and I can afford to bank it, I will."

Experimental trials indicate the blood may be useful in treating non-matched patients since the cells are not yet fully imprinted with the identity markers that would normally cause acute rejection. Therefore, it is likely that cord blood transfusions could be useful for treating unrelated recipients, and recipients with rare tissue who might otherwise die for lack of a matching donor.[347]

---

[346] Journal of the American Medical Association 273 (1995), pp. 1813-5; New England Journal of Medicine 333 (1995), p. 67; Journal of the American Medical Association 274 (1995), pp. 1783-5; Science 271 (1996), pp. 586-8; Journal of the American Medical Association 275 (1996), p. 910; New England Journal of Medicine 335 (1996), pp. 157-66, 199-201; Biotechnology 12 (1994), pp. 23-4; Science 262 (1993), p. 1511.

[347] New England Journal of Medicine 335 (1996), pp. 167-70.

Whatever the concerns, there are lives at stake; and there is a need to act if these lives can be saved. While many of the various options for solving the shortage of human organs and tissue for transplantation are controversial, there are still thousands each year who die for lack of an organ or tissue. If there is a way of preventing these deaths from occurring again in the years to come, it should be considered seriously.

II. Bioethical Guidelines For Physicians

American Medical Association (AMA) President, James Mario Sims, M.D., said in 1876, "Medicine and the world in which it is practiced are constantly changing; the ethics which govern medicine must keep pace with the progress."[348] These words are as true today as they were the day he spoke them; and they are as important, if not more important, today. As the world evolves and the knowledge that we share continues to grow at incredible rates, we are face to face with an apparently endless series of ethical questions and dilemmas. The need for guidance and limits is crucial to those within the medical world in this day and age.

The Code of Medical Ethics[349] is the most comprehensive ethical guide in existence. It is recognized as the standard for the medical profession not only by the profession but also by state medical boards, state and federal courts, the United States Congress and the United States Supreme Court.[350]

---

[348] "Keeping The Lead In Ethics," American Medical News, Editorial, August 5, 1996.

[349] Code Of Medical Ethics: Current Opinions With Annotations, 150th Anniversary Edition, Chicago: AMA, 1997.

[350] "Keeping The Lead In Ethics," American Medical News, ibid.

Near the beginning of the Code of Medical Ethics comes the "American Medical Association Principles of Medical Ethics."[351] This set of principles, developed primarily for the benefit of the patient, is the accepted statement of the limits and obligations which doctors are supposed to follow. While these standards of conduct are not law, they are an

---

[351] Code Of Medical Ethics: Current Opinions With Annotations, 150th Anniversary Edition, Chicago: AMA, 1997, p. xiv.

American Medical Association

Principles Of Medical Ethics

Preamble:

The medical profession has long subscribed to a body of ethical statements developed primarily for the benefit of the patient. As a member of this profession, a physician must recognize responsibility not only to patients, but also to society, to other health professionals, and to self. The following Principles adopted by the American Medical Association are not laws, but standards of conduct which define the essentials of honorable behavior for the physician.

I. A physician shall be dedicated to providing competent medical service with compassion and respect for human dignity.

II. A physician shall deal honestly with patients and colleagues, and strive to expose those physicians deficient in character or competence, or who engage in fraud or deception.

III. A physician shall respect the law and also recognize a responsibility to seek changes in those requirements which are contrary to the best interests of the patient.

IV. A physician shall respect the rights of the patients, of colleagues, and other health professionals, and shall safeguard patient confidences within the constraints of the law.

V. A physician shall continue to study, apply and advance scientific knowledge, make relevant information available to patients, colleagues, and the public, obtain consultation, and use the talents of other health professionals when indicated.

VI. A physician shall, in the provision of appropriate patient care, except in emergencies, be free to choose whom to serve, with whom to associate, and the environment in which to provide medical services.

VII. A physician shall recognize a responsibility to participate in activities contributing to an improved community.

outline of the responsibilities which the physician accepts with respect to the patient and the general public.

In addition to providing competent medical service, the physician is expected to show compassion and respect for human dignity. This includes but is surely not limited to listening to and taking into account the requests and opinions of the patient with regard to his or her own medical care decisions. At times these decisions may involve showing patience and tenderness in difficult times that may cause the patient to behave in an unacceptable or inappropriate fashion. It means that the doctor has an obligation to listen to the wishes of the patient and to show the patient the dignity of informing her of the diagnosis, explaining her options, and allowing her a contributing role in the decision making process.

The doctor is of course limited by the federal, state and local laws in the jurisdiction in which he or she practices. This means that the physician must follow the law, and see to changes and adaptations to the laws when necessary to safeguard the well being of patients.

All physicians have an obligation to respect the rights of patients and to deal honestly and openly with patients. This includes informing the patient of all findings and allowing the patient the option of a consultation or second opinion.

The doctor always has the right to refuse to continue treating a patient if the wishes of the patient are contrary to the beliefs of the doctor. The doctor certainly has the right outside of emergency situations to refer a patient to a colleague, and not to continue serving as that patient's care giver. Along with the physicians rights and responsibility comes responsibility to the community at large, and to the general public.

The guidelines specifically address the issue of organ donation by condemned prisoners. It is "permissible only if:

1) The decision to donate was made before the prisoner's conviction,

2) The donated tissue is harvested after the prisoner has been pronounced dead and the body removed from the death chamber, and

3) Physicians do not provide advice on modifying the method of execution for any individual to facilitate donation."[352]

Later in the document there are additional guidelines that seem to cause a conflict for a doctor who wishes to harvest tissue or an organ from a living donor. "In all professional relationships between a physician and a patient, the physician's primary concern must be the health of the patient." This would seem to indicate that in a given situation, the doctor could only fairly and competently represent one patient, and not an entire family for example. While a family practitioner may very well be the one person who knows all of the players and can, therefore, make the best overall suggestions and give the best general advice, one physician can only fairly represent a single patient if that physician wants to rest assured that he or she will properly give that patient "primary allegiance."

> This concern and allegiance must be preserved in all medical procedures, including those which involve the transplantation of an organ from one patient to another where both donor and recipient are patients. Care must, therefore, be taken to protect the rights of both the donor and the recipient, and no physician may assume a responsibility in organ transplantation unless the rights of both donor and recipient are equally protected. A prospective organ transplant offers no justification for a relaxation of the usual standard of medical care for the potential donor.[353]

The potential for abuse and misconduct here is so easily foreseen that the committee saw fit to mention specifically the case of a transplant recipient and a living donor. The text continues with the specific guidelines and limits for working with minors or children in the context of organ or tissue donors.

---

[352] Code Of Medical Ethics:, ibid., 2.06, p. 12.

[353] Code Of Medical Ethics:, ibid., 2.16, p. 31.

2.167 The Use of Minors as Organ and Tissue Donors.[354]

Minors need not be prohibited from acting as sources of organs, but their participation should be limited. Different procedures pose different degrees of risk and do not all require the same restrictions. In general, minors should not be permitted to serve as a source when there is a very serious risk of complications (e.g., partial liver or lung donation, which involve a substantial risk of serious immediate or long-term morbidity). If the safeguards in the remainder of this opinion are followed, minors may be permitted to serve as a source when the risks are low (e.g., blood or skin donation, in which the donated tissue can regenerate and spinal or general anesthesia is not required), moderate (e.g., bone marrow donation, in which the donated tissue can regenerate but brief general or spinal anesthesia is required) or serious (e.g., kidney donation, which involve more extensive anesthesia and major invasive surgery).

If a child is capable of making his or her own medical treatment decisions, he or she should be considered capable of deciding whether to be an organ or tissue donor. However, physicians should not perform organ retrievals of serious risk without first obtaining court authorization. Courts should confirm that the mature minor is acting voluntarily and without coercion.

If a child is not capable of making his or her own medical decisions, all transplantation should have parental approval, and those which pose a serious risk should receive court authorization. In the court authorization process, the evaluation of a child psychologist must be sought and a guardian **ad litem** should be assigned to the potential minor donor in order to fully represent the minor's interests.

When deciding on behalf of immature children, parents and courts should ensure that transplantation presents a "clear benefit" to the minor source, which entails meeting the following requirements:

---

[354] Code Of Medical Ethics:, ibid., pp. 34-36; 2.167 The Use of Minors as Organ and Tissue Donors, Issued June 1994, based on the report "The Use of Minors as Organ and Tissue Donors," Issued December 1993.

(1) Ideally the minor should be the only possible source. All other available sources of organs, both donor pools and competent adult family members, must be medically inappropriate or significantly inferior. An unwilling potential donor does not qualify him/her as medically inappropriate.

(2) For transplantation of moderate or serious risk, the transplantation must be necessary with some degree medical certainty to provide a substantial benefit; that is, it both prevents an extremely poor quality of life and ensures a good quality of life for the recipient. A transplant should not be allowed if it merely increases the comfort of the recipient. If a transplant is not presently considered to provide a substantial benefit but is expected to do so within a period of time, the transplant need not be delayed until it meets this criterion, especially if the delay would significantly decrease the benefits derived from the transplant by the recipient.

(3) The organ or tissue transplant must have a reasonable probability of success in order for transplantation to be allowed. What constitutes a reasonable chance of success should be based on medical judgments about the physical condition of the recipient and the likelihood that the transplant will not be rejected or futile, or produce benefits which are very transient. Children should not be used for transplants that are considered experimental or non-standard.

(4) Generally, minors should be allowed to serve as a source only to close family members.

(5) Psychological or emotional benefits to the potential source may be considered, though evidence of future benefit to the minor source should be clear and convincing. Possible benefits to a child include continued emotional bonds between the minor and the recipient, increased self-esteem, and prevention of adverse reaction to death of a sibling. Whether a child will capture theses benefits depends upon the child's specific circumstances. A minor's assent or dissent to a procedure is an important piece of evidence that demonstrates whether the transplant will offer psychological benefits to the source. Dissent from incompetent minors should be powerful evidence that the donation will not provide a clear benefit, but may not present an absolute bar. Every effort should be made to identify and address the child's concern's in the case.

(6) It is essential to ensure that the potential source does not have any underlying conditions that create an undue individual risk.

In addition to the AMA guidelines there are also other documents which seek to safeguard the physicians, the patients and the integrity of the system. "A Patient's Bill of Rights," from the American Hospital Association, must be taken into account when decision making is taking place in a hospital.[355] It is not acceptable simply to treat the patient according to a doctors orders without getting some type of consent from the patient or family of the patient whenever possible. At times, in cases which involve a judgment call involving opposing ethical values, possible legal liability, or unusual risk, it might be necessary to consult a hospital's ethics board.

---

[355] "A Patient's Bill Of Rights," American Hospital Association, Tom L. Beauchamp, LeRoy Walters, Contemporary Issues In Bioethics, Third Edition, Wadsworth Publishing Company, Belmont, California, 1982, pp. 333-334.

"The Nuremberg Code," was taken, "From Trials of War Criminals Before the Nuremberg Military Tribunals Under Control Council Law No. 10., Vol. II. The trials were held in Nuremberg, from October 1946 through April 1949.[356] Here too there are guidelines which help physicians to draw lines and set limits with regard to what behavior is acceptable, and what conduct is beyond their rights and responsibilities.

It begins with the imperative that voluntary consent of human subjects is essential. Even with that requirement, the experiment must still be for the benefit of society and mankind, and not for random unnecessary curiosity. It should be well tested enough that the physicians have a good idea from animal tests what to expect from the human trials; and it should avoid all possible suffering. No testing may be conducted where there is reason to believe that death or disabling injury will occur.

The degree of risk should be proportionate to the problem that it will solve. This is the most direct relevant point to our situation with living donors. The risk of donation should not outweigh the risk involved in the disease of ailment the donation is intended to alleviate.

Experimentation should be conducted only by professionals. Volunteers should be able to end the experiments at any time if they feel they are unable to continue; and the person in charge of the experiment should be ready top stop the experiments at any moment if something goes wrong and the human subjects are in danger.

---

[356] "The Nuremberg Code," Tom L. Beauchamp, LeRoy Walters, Contemporary Issues In Bioethics, p. 420.

"The Declaration of Helsinki," was adopted by the 18th World Medical Assembly, Helsinki, Finland, in June 1964, amended by the 29th World Medical Assembly, Tokyo, Japan, in October 1975, and the 35th World Medical Assembly, Venice, Italy, in October 1983.[357] The document contains recommendations meant to help guide physicians in biomedical research involving human subjects. This would apply to cases and procedures which are experimental and, therefore, considered a greater risk than would ordinarily be taken with a human life. While the updates indicate that there has been progress and that there are new considerations added, the speed of progress in the scientific and medical communities might warrant more regular amendments and updating, to remain a viable and useful guide.

It spells out principles for human subject research, and stresses the need for adequate preparation in animal experimentation before human subjects are introduced. All human subject experiments should be written up, reviewed and approved by an independent bioethics board before any procedure begins. Only qualified persons should engage in human research and experimentation. The importance of the outcome must be proportionate with the risk involved, as stated above in the Nuremberg Code.

The interests of the subjects must always come before the interests of science or society. The privacy and integrity of the subject must always be safeguarded. If the hazards become greater than the potential benefits, the experiment should end.

There must be informed consent for a human volunteer to become a subject. This is especially difficult in instances where the subject is related to the doctor in charge of the experiment. There are guidelines for minors and incompetent adults and getting their consent.

---

[357] "Declaration Of Helsinki," Tom L. Beauchamp, LeRoy Walters, Contemporary Issues In Bioethics, p. 421.

The document continues to discuss Clinical research guidelines and how patients may or may not be included in these trials. And lastly the declaration non-clinical research, involving human subjects, for the sake of science and furthering knowledge.

The only guide that seemed to speak directly to the issue of weighing the losses and the gains in a situation is the "Cost benefit Analysis Applied to Risks: Its Philosophy and Legitimacy," by Herman B. Leonard and Richard J. Zeckhauser.[358] They take into account all of the risks to life, health and property. As is apparent in considering any living donor cases, this involves a complex of troubling decisions and problems. Risk is a difficult factor to assess because:

1) It is difficult, if not impossible, to measure what "quantity" of risk is at stake in a situation.

2) People are generally unsophisticated in their treatment of risk; even when informed, people often have a difficult time interpreting the information and making self-interested decisions.

3) People do not generally have control over risks imposed on them, for example, a drunk driver puts all on the roads with him at significant risk.

In general all of the directions and guidelines to the physician say the same thing with regard to living donors of organs and tissue. There is an obligation to be open and honest with the volunteer, and to not put the volunteer at any more risk than is necessary. The dignity of the subject must be maintained, and the safety and well-being of that person, and all subjects, must be foremost in importance, before the interests of science or society. Many of the above principles can be applied to the situation of living donors since the procedures in many cases are still considered "experimental."[359]

---

[358] Herman B. Leonard, Richard J. Zeckhauser, "Cost Benefit Analysis Applied To Risks: Its Philosophy And Legitimacy," Tom L. Beauchamp, LeRoy Walters, Contemporary Issues in Bioethics, pp. 607-612.

[359] For a Jewish Doctor's guidelines, prayer, see Appendix C.

Chapter 5.

Halachic Source Material

I. Biblical And Rabbinic Background

The first and foremost of all of the values that govern the behavior and the decision making of the Jewish people is the value placed on the obligation to preserve human life. The inestimable value placed on human life is a cardinal principle of Jewish law.[360]

Many moral and religious questions begin to arise in the 1960's as transplantation reached the public. When the procedures were first introduced, in the experimental stages, the risk factor was high and there was little to no chance of long term survival. The פוסקים based their decisions to prohibit these procedures halachically on these statistics.

Where the donor continues to live, however, what degree of risk is halachically acceptable? This will be the critical question for our discussion, once all of the other basic issues are established.

Halachically speaking, the issue gets confusing. We must weigh, first of all, the various conflicting מצוות. On the one hand, we are bound by the imperative to save lives at almost any cost, on the other hand the rights of the donor are also of the utmost importance. There is a definite conflict in any case and the job of the Rabbis is to determine which laws take priority and why? It must be determined on what basis the donation and/or receipt of organs is forbidden, obligatory or merely permitted.[361]

---

[360] Joseph Prouser, "'Chesed or Chiyuv?': The Obligation To Preserve Life And The Question Of Post-Mortem Organ Donation," Committee On Jewish Law And Standards, The Rabbinical Assembly, Teshuvah, December 1995, p. 1.

[361] Basil F. Herring, Jewish Ethics And Halakhah For Our Times II, Hoboken, New Jersey: Ktav Publishing House, New York: Yeshiva University Press, 1989, p. 85-87.

Life Saving & Risk Taking

In a case of a patient with a limited life expectancy, generally assumed to be up to twelve months, the rabbis agree that the patient has permission to undergo hazardous treatment or surgery in an attempt at long term survival even where the treatment poses the threat of immediate death.[362] The critical issue here is the degree of risk and the rate of success. What is the likelihood of success or of failure?

The discussion can go as far back as the Garden of Eden and the references to Adam's rib being removed to create his help-mate, Eve. Some suggest that this is the earliest occurrence of living donation.[363] For sources on risk taking, and the saving of life, biblical experts point to Exodus 1:16-17, where midwives risk their lives to save the lives of the Jewish babies. This text is used to demonstrate that one may take on a certain degree of risk in order to safeguard the life of another.

Soon after, in the biblical narrative, in Exodus 4:19, Moses is told to return to Egypt, to rescue the children of Israel, now that all who sought to kill Moses are dead. Some rabbis look to this incident to prove that one may not purposefully take on any added risk to his own life.

In the book of Esther, 4:8-5:1, Mordechai pleads with Esther to risk her own life by going before the king to save the lives of the Jews. Esther of course listens to her cousin Mordechai and does go before the king. Like the example of the midwives, this too is seen as proof that one may, in the interest of saving lives and the good of the general community, put her own life at risk.

---

[362] Herring, Jewish Ethics And Halakhah For Our Times II, p. 85-87.

[363] Julius Preuss, Dr. Fred Rosner, M.D., F.A.C.P., Translators, Editors, Biblical And Talmudic Medicine, Northvale, New Jersey: Jason Aronson, 1977.

The other side of this argument is that Esther, 4:16, goes before the king and successfully pleads her case. This example therefore provides no proof for the risk one may take for the sake of saving another life, since Esther was risking only one life, her own, for the sake of saving the lives of all of the Jews, not one life at risk in order to save one life.[364]

סנהדרין, 73a, (c. 500 CE) discusses a case of drowning man. Judaism puts an obligation on all Jews to save a life that is in danger, or to at least attempt a rescue. When a rescue attempt does not put the rescuer in danger, the rescuer must rescue someone from even possible danger.[365]

But the particulars of the degree of are not spelled out or defined for the reader. What if there is some degree of risk? How do we measure that danger and how do we make that decision?

תלמוד בבלי סנהדרין, 73a reformulates this prohibition, "מצוה לא תעשה," into a positive, proscriptive obligation, "מצות עשה," by relating the duty to intervene in life threatening situations to the commandment regarding the restoration of lost property, "השבת אבידה."[366] "Every individual, insofar as he is able, is obligated to restore the health of a fellow man no less than he is obligated to restore his property."[367]

In codifying this מצוה, Maimonides (1138-1204) emphasizes in the משנה תורה how broadly and seriously this obligation is applied:

כל היכול להציל ולא הציל עובר על לא תעמוד על דם רעך

---

[364] Nachum Amsel, Jewish Encyclopedia Of Moral And Ethical Issues, Northvale, New Jersey: Jason Aronson, Inc., 1994. pp. 97-98.

[365] Amsel, Jewish Encyclopedia Of Moral And Ethical Issues, ibid.

[366] Deuteronomy 22:1.

[367] Rabbi J. David Bleich, Contemporary Halakhic Problems, Hoboken, New Jersey: Ktav Publishing House, New York, New York: Yeshiva University Press, 1977, 1983, 1989, p. 95; Prouser, "Chesed or Chiyuv?" p. 1.

"Anyone who is able to save a life, but fails to do so, violates, 'You shall not stand idly by the blood of your neighbor.'"[368] In describing the analogous duty to save the life of one who is being pursued by an assailant, a "רודף," Maimonides leaves no room for exemption: כל ישראל מצווין להציל "All Israel are commanded to take life-saving action."[369] Indeed, not even the inability personally to save the life in peril relieves one of this obligation:

> 'You shall not stand idly by the blood of your neighbor' means 'You shall not rely on yourself alone.' Rather, you must turn to all available resources so that your neighbor's blood will not be lost.[370]

It is abundantly clear that the mandate to preserve life, פיקוח נפש, takes precedence over other religious obligations and considerations. The prohibitions against murder, sexual immorality, and idolatry are, under normal circumstances, the only exceptions.[371]

Preservation of human life is the essential purpose of the commandment. One must make every reasonable effort to save a life.[372] As a matter of fact, when it comes to saving a human life, one is not only permitted, but commanded, to violate the laws in question in order to save a life. While there is responsibility to return or compensate the owner of any lost or stolen items, there is no criminal culpability for the theft or most other violations, since the act is primarily one of פיקוח נפש. The rabbis explain that God would forgive the transgression because, "It is better that he should violate one Sabbath so that he can observe many Sabbaths (once the person's life has been saved).[373] Former British Chief Rabbi Immanuel Jakobovits articulates this principle in no uncertain terms:

---

[368] Maimonides, משנה תורה הלכות רוצח ושמירת הנפש, 1:14.

[369] Maimonides, משנה תורה הלכות רוצח ושמירת הנפש, 1:6.

[370] תלמוד בבלי סנהדרין, 73a, רש"י, ad loc; Prouser, "Chesed or Chiyuv?" p. 1.

[371] תלמוד בבלי סנהדרין, 74a; תלמוד בבלי יומא, 82a.

[372] This principle was adopted by the Israeli Supreme Court and emphasized by Justice Beiski in a decision dated 16 June 1986(480/85 and 527/85).

> It is obligatory to disregard laws conflicting with the immediate claims of life, and ... it is sinful to observe laws which are in suspense on account of danger to life or health... it is not only permitted but imperative to disregard laws in conflict with life or health.[374]

Clearly Jakobovits believes that there is an halachic hierarchy which dictates which laws are given priority when they are in conflict with one another. The top of the list of priorities is clearly the saving of a life; אין לך דבר שעומד בפני פקוח נפש "Nothing may stand in the way of a life-saving act."[375] Preservation of life overrides all other considerations, in fact, it is prohibited to allow anything, even the fulfillment of a commandment, to stand in the way. Likewise, one is commanded to avoid life threatening danger at all costs; סכנת-נפשות דוחה את הכל.[376] This is an overriding principle.

> It is commanded that we violate the Sabbath for anyone dangerously ill. One who is zealous (and eagerly violates the Sabbath in such a case) is praiseworthy; one who (delays in order to) ask (questions about the law) is guilty of shedding blood.[377]

---

[373] תלמוד בבלי יומא, 85a-b; תלמוד בבלי סנהדרין, 74a-b; מכילתא, on Exodus 31:13.

[374] Avraham Steinberg, M.D., Jewish Medical Ethics, 1975 (Later retitled, reprinted as David Simons, M.D., Translator, Jewish Medical Law, Jerusalem, Israel: Gefen Publishing, 1980.), p. 50.

[375] תלמוד בבלי יומא, 82a.

[376] שולחן ערוך יורה דעה, 263:1.

[377] אורח חיים, 328:2.

There is a parable from the Jerusalem Talmud which illustrates the matter well.[378] Rav Ami is in a precarious situation. Rav Yonatan says, "Forget about him; all hope is lost." Resh Lakish says, "I will rescue him and in the process I will kill or be killed."

Without help, the victim faces ודאי מת, sure death, while the intervening individual faces only ספק מת, possible death.[379] תלמוד בבלי says that this is too great a risk to require one to attempt to save the life.[380]

The Babylonian Talmud (c. 500 CE) and Maimonides (1138-1204) take this to mean the removal of all danger to one's well-being.[381] We know that one may not intentionally wound oneself;[382] also we know that one may not set aside one life for another.[383] The passage from the תלמוד ירושלמי is found in many responsum, and codes.[384]

---

[378] The opinion from the תלמוד ירושלמי, from בית יוסף, טור חושן משפט 426:1, Note 2, brings in the הגהות מיימוניות which quotes the ירושלמי but does not attribute it to a source. Rabbi Zvi Y. Berlin in his העמק השאלה, שאילתא 129, Note 4, identifies the ירושלמי in question as the statement of Resh Lakish in תרומות, Chapter 8, Halacha 4.

[379] בית יוסף חושן משפט, 426:1, Note 2.

[380] פתחי תשובה, loc cit, in name of אגודת אזוב. Actual גמרא in question is נדה, 61a. See שו"ת ציץ אליעזר, Volume 10, Number 25, Chapter 7, for analysis of אגודת אזוב.

[381] ברכות, 32b; Maimonides, משנה תורה הלכות רוצח ושמירת הנפש, 11:4; Dr. Fred Rosner, M.D., F.A.C.P., Modern Medicine And Jewish Law, New York: Bloch Publishing Company, Yeshiva University Press, 1972; Dr. Fred Rosner, J. David Bleich, Editors, Jewish Bioethics, New York: Sanhedrin Press, 1979; Dr. Fred Rosner, M.D., F.A.C.P., Rabbi Dr. Moshe David Tendler, Practical Medical Halacha, Jerusalem, Israel: Feldheim Press, Ltd., 1980; Dr. Fred Rosner, M.D., F.A.C.P., Modern Medicine And Jewish Ethics, New York: Ktav, Yeshiva University Press, 1991.

[382] בבא קמא, 91b; הלכות שבועות, 5:17; הלכות חובל ומזיק, 5:1; Rosner, Modern Medicine And Jewish Law; Rosner, Bleich, Jewish Bioethics; Rosner, Tendler, Practical Medical Halacha; Rosner, Modern Medicine And Jewish Ethics.

[383] אהלות, 7:6; Maimonides, משנה תורה הלכות רוצח ושמירת הנפש, 1:9; Karo, שולחן ערוך, יורה דעה, 425:2; Rosner, Modern Medicine And Jewish Law; Rosner, Bleich, Jewish Bioethics; Rosner, Tendler, Practical Medical Halacha; Rosner, Modern Medicine And Jewish Ethics.

[384] See Joseph Karo, כסף משנה, on Maimonides, משנה תורה הלכות רוצח ושמירת הנפש, 1:14; Rabbi Joshua Valk (Falk) Cohen, מאירת עינים on Karo, שולחן ערוך, חושן משפט,

Talmudic authorities agree that it is prohibited to bring irreversible harm to oneself.[385] There are, however, differences of opinion when it comes to cases of injuring oneself for beneficial effects.[386]

The תלמוד ירושלמי supports taking a risk for the sake of saving another person's life.[387] Rabbi Joseph Karo (1488-1575) concludes that the authorities disagree with this view.[388] They ruled that just as one may not sacrifice his own life, one also must not risk his life to save another.[389] This opinion, from the תלמוד בבלי is the accepted halachah.[390]

The תוספתא points to the infinite value of human life.[391] Maimonides[392] cites the תוספתא and the תלמוד ירושלמי as the halachah, stating that it is prohibited to kill an individual human being even if it is to save the lives of many others.[393]

426:1; Rabbi Yechiel Michael Ben Aharon Halevi Epstein, ערוך השלחן, חושן משפט, 426:4; Rosner, Modern Medicine And Jewish Law; Rosner, Bleich, Jewish Bioethics; Rosner, Modern Medicine And Jewish Ethics.

[385] בבא קמא, 91b.

[386] בבא קמא, 91b; See also W. Gunther Plaut, Mark Washofsky, "Cosmetic Surgery," 5752.7, Teshuvot for the Nineties: Reform Judaism's Answers for Today's Dilemmas, New York: CCAR Press, 1997, pp. 127-132.

[387] הגהות מימוניות quoting the תלמוד ירושלמי כסף משנה רוצח, 1:14; בית יוסף חושן משפט, 426; Cf. Rabbi Tzvi Y. Berlin, העמק שאלה, 147:2; A.S. Sofer, "Lifesaving" (in Hebrew), המעין, 22:3 (Nissan 5742), pp. 31-40.

[388] ספר מאירת עינים, 426:2.

[389] In war one is obligated to endanger oneself to save others; therefore, it is halachically prohibited to abandon a battle field. See משנה סוטה, 8:6; Rabbi Eliezer Yehudah Waldenberg, שו"ת ציץ אליעזר, Volume 12, Number 57.

[390] שו"ת רב בי גאון in Shlomo Zalman Auerbach, Editor, ספר האשכול, ספר תורה הלכות, II:49; פסקי הרי"ף, ערוכין; ארץ ישראל בספרות התשובות, I:18-26 (משנה סוטה, 8:6).

[391] Lieberman, Editor, תוספתא תרומות, VII:20.

[392] משנה תורה יסודי התורה, 5:5.

[393] תלמוד ירושלמי תרומות, 8:4.

The halachah indicates that there is a very fine line between heroism and stupidity.[394] Karo's בית יוסף explains that Resh Lakish was correct to take on possible death to rescue Rav Ami from certain death. This is only in a case of certain death, and does not account for the situations of possible death, and certain danger, like the rescue of hostages from Entebbe. Interestingly, while Karo includes this quote in the בית יוסף, it is not included in his later work, the שלחן ערוך (1565).[395]

Halachic Altruism

Living organ donation is first mentioned in the halachic literature with regard to kidney transplantation. The introduction of the idea begs the question, "At what precise point does my responsibility to care for others give way to legitimate concerns for my own life?"[396] Rabbi Mark Washofsky, of the Hebrew Union College-Jewish Institute of Religion, Cincinnati, Ohio, addresses this question with regard to the obligation to treat patients with AIDS, however, the same principles apply to the case at hand as well.

---

[394] בית יוסף טור חושן משפט, 426 quoting הגהות מימוניות הלכות רוצח, 1:15 quoting תלמוד ירושלמי תרומות, 8:4.

[395] שו"ע, חושן משפט, 426:2; פתחי תשובה חושן משפט, 426:2; יורה דעה, 157:15; Rabbi Dovid Cohen, "Taking Risks," Journal of Halachic and Contemporary Law XXXIII, Spring 1997, pp. 37-70.

[396] Mark Washofsky, "AIDS And Ethical Responsibility: Some Halachic Considerations," Journal of Reform Judaism, Winter 1989, pp. 53-65.

We are well aware of our Toraitic obligation to rescue those whose lives are in danger.[397] פיקוח נפש is a paramount value in the tradition applying to ones own life as well as to the lives of others.[398] We are extended great latitude and flexibility with regard to how we are to fulfill the obligation of פיקוח נפש . We can go so far as to violate the Sabbath in order to save a life. Clearly we are to put this מצוה above all others.

Life is an ultimate value in Jewish law; it stands to reason that the saving of a life is a significantly important obligation, while the risking of a life is an equally significant prohibition. So, what happens when the two are juxtaposed to one another? What happens when one must risk a life in order to save a life? This is among the most weighty decisions the halachah must face.

Washofsky looks to the Torah for direction. "וחי בהם"[399] is taken to mean that one is not to jeopardize his life in order to fulfill מצוות. Jews are prohibited from entering into a "dangerous situation" in order to perform a מצוה.[400] This certainly applies to cases of "clear and present danger," ודאי סכנה. Some authorities apply this also to cases of "possible danger," ספק סכנה.

Washofsky points out that the sources chosen by the authorities actually make a stronger case against the stand the Rabbis have chosen than in support. The texts suggest that one is obligated to risk "possible danger" in order to save a fellow human being. תלמוד בבלי סנהדרין, 73a tells us that we must save a man from drowning in a river, an attack by wild beasts, or from robbers.

---

[397] Leviticus 19:16; תלמוד בבלי סנהדרין, 73a.

[398] תלמוד בבלי סנהדרין, 74a; י״ד, יסודי התורה, Chapter 5; יורה דעה, 157.

[399] Leviticus 18:5.

[400] תלמוד בבלי יומא, 8:5-7.

The Rabbis cite Leviticus, 19:16, לא תעמד על דם רעך "Do not stand idly by the blood of your neighbor," as a legal requirement to do "whatever is necessary to save the life of another." There is no mention here of an exemption for danger to the rescuer.

רמב״ם taught, כל היכול להציל ואינו הציל עובר על לא תעמד על דם רעך "one who is able to rescue and does not rescue another person violates the commandment, 'Do not to stand idly by the blood of your neighbor.'"[401] Some say that this is the loop hole that allows one not to perform a rescue in the event that there is the possibility of danger to the rescuer's life. "If one is able," is read to imply without any risk or without endangering one's self.

Rabbi Menachem HaMeiri says one is required to attempt to rescue another person only when one is able to do so without any danger, בלא סכנה . Rabbi Joel Sirkes reads "ספק סכנה" into רמב״ם, and interprets it to mean that one is obligated to at least attempt a rescue in all cases. However, he applies his understanding only to cases where there is a high certainty of success and no danger to the rescuer.

רמב״ם on the other hand made no mention of the possibility of dangers involved in a rescue. He allows for an exemption in a case where there is "clear and present danger," ודאי סכנה , but not for "potential danger," ספק סכנה. Karo, in his commentary on the טור, maintains that "the victim's mortal danger outweighs the potential danger facing the rescuer."[402] The Talmudic logic here is based on the principle, "Whoever saves one Jewish life saves an entire world."[403]

---

[401] י״ד רוצח, 114.

[402] בית יוסף חושן משפט, 426.

[403] תלמוד בבלי סנהדרין, 4:5.

Karo's כסף משנה (16th century) on Maimonides' משנה תורה (1178), describes the obligation to rescue a person whose life is in danger, and says that the obligation to rescue, or at least attempt to save the life in danger, stems from the fact that there is clear and definite danger to the life of the victim; meanwhile there is only possible danger posed to the rescuer.[404]

Karo's בית יוסף (16th century) commentary on the טור (13th century) quotes the תלמוד ירושלמי,[405] and suggests that since each of the two lives in question, the victim and the rescuer, are of infinite value, clearly one must put one life in possible mortal danger in order to save the other life from certain death.[406]

However, Karo's שולחן ערוך (c. 1565) does not include this statement in its ruling. The omission is based on בבא מציעא, 62a,[407] which tells the story about two men in the desert; one man with a water flask enough to keep one man alive, and the second man, without any water, is sure to die unless the first shares his one bottle of water. It is clear that neither will survive if the two divide the one bottle of water.

Ben Petura says that they should divide the water, even if the consequence of that action is that the two men will both die. Akiva says that the owner of the water should keep it all to himself and not share with the other, that way at least the owner of the water may live. He must do what is necessary to save himself, even if that means to let the other man die.

---

[404] Maimonides, הלכות רוצח, 1:14; Amsel, Jewish Encyclopedia Of Moral And Ethical Issues.

[405] תלמוד ירושלמי תרומות, 8:4.

[406] טור שולחן ערוך חושן משפט, 426; Amsel, Jewish Encyclopedia Of Moral And Ethical Issues.

[407] Amsel, Jewish Encyclopedia Of Moral And Ethical Issues.

The תלמוד בבלי rules according to Akiva, who concludes that a man may not put his own life in jeopardy to save the life of another who will surely die regardless of any attempt to save him. The only difference in the two scenarios is that the man with the water bottle can potentially save himself, or he can share the bottle, and they will both die. Maimonides [רמב"ם], Isaac Alfasi [רי"ף](1013-1103), Jacob Ben Asher [טור](13th century), and Asher Ben Yechiel [רא"ש or אשרי"](1250-1327), all omit the תלמוד ירושלמי citation, indicating that the law is not according to the תלמוד ירושלמי.[408] This is how the halachah is codified in the משנה ברורה, 19, by Rabbi Yisrael Meir HaCohen, known also as the חפץ חיים, in the twentieth century.[409]

This ruling demonstrates that a Jew is not obligated to risk her own life in order to save the life of another who will die without assistance; but the question remains, is she permitted to put herself at risk to save the life of another human being?

רדב"ז

Rabbi Moshe Feinstein, (1895-1986) based his פסק דין, halachic decision, on a responsum of Rabbi David Ben Zimra (d.1573),[410] known as the רדב"ז, who was the chief rabbi of Egypt, in Cairo. This classic Rabbinic text that deals with the issue of risk and danger is a responsum discusses "whether a Jew could agree to the demand of a tyrant to remove his 'ear,' or in some versions 'extremity' or 'limb,' by way of saving the life of an imprisoned fellow Jew."

---

[408] Rosner, Modern Medicine and Jewish Law; Rosner, Modern Medicine and Jewish Ethics, 1991, pp. 286-288.

[409] משנה ברורה, 19, שולחן ערוך אורח חיים, 329:8.

[410] שו"ת אגרות משה, II, יורה דעה, 174:4; Amsel, Jewish Encyclopedia Of Moral And Ethical Issues.

The argument is raised if one can violate the holy Sabbath to save a life, surely one can sacrifice an organ to do the same. The רדב״ז responds that this is only with regard to danger that originated in heaven and not of human making. The sacrificing of an organ "might conceivably endanger his life." He reasons that the laws of Torah should foster harmony and be in full agreement with rational thought. The demand is therefore unreasonable according to the halachah. It can only be undertaken voluntarily as an act of piety.

If there is "the possibility of danger to his life," ספק סכנת-נפשות, then he is a "pious fool," חסיד שוטה. While the gesture is a great one, one's own life always takes precedence.[411] רדב״ז is the major source for risk taking to save another. He cites the ירושלמי but only applies it to situations of minimal risk to the rescuer.[412]

If the danger to a person's life is a "significant possibility," or the risk to the rescuer's life, then surely the person must not rescue the other life. One may not even attempt to rescue that life from danger, even if one wishes to volunteer to do so.

If, however, there is "minimal danger," that is to say, "less than possible danger," a person may voluntarily choose to rescue another life in danger, but there is certainly no obligation halachically.

---

[411] תשובות רדב״ז, Volume 3, Number 1052 (627).

[412] תשובות רדב״ז, Number 1582 (218); רדב״ז is quoted in the פתחי תשובה, חושן משפט 426:2 and יורה דעה 157:15; Rabbi Eliezer Yehudah Waldenberg, שו״ת ציץ אליעזר, Volume 9, 45:9; See similar interpretation of the תלמוד ירושלמי by Maharam Schick; Cohen, "Taking Risks."

If there is determined to be only an "extremely small risk" of danger, less than minimal danger, that degree of risk does not even count as risk. In a situation of this magnitude one is in fact halachically obligated to save the life of the one in danger. In the final analysis, תשובות רדב״ז rules that an individual is not obligated to sacrifice a limb to save the life of another.[413]

The decision of Resh Lakish to rescue Rav Ami is similar to the decision people face when deciding about the sacrifice or donation of a kidney to save the life of another. In contrast with the removal of a kidney, which does not cause disability,[414] the removal of a limb causes a substantial disability.

We now know:

1. We may not shorten the life of the donor.
2. We are never under an obligation to donate an organ like a kidney.[415]
3. Volunteering to take on some degree of risk involved in living-donation, while not an obligation which can be enforced, is a מצוה of great merit.[416]

---

[413] תשובות רדב״ז, Volume 3, Number 627; Fink, Rabbi Reuben. "Halachic Aspects Of Organ Transplantation" Journal Of Halachic And Contemporary Law V, pp. 45-64.

[414] See J.S. Tapson, "The Risk of Donor Nephrectomy," International Journal of Artificial Organs 8(1), 1985, pp. 13-16; Weiland D, et al, "Information On 628 Living-related Kidney Donors At A Single Institution With Long Term Follow-up In 472 Cases," Transplant Proceedings 16 (1984), p. 5; F. Vincenti, et al, "Long-term Renal Function In Kidney Donors: Sustained Compensatory Hyperfiltration With No Adverse Effects," Transplantation 36 (1983), p. 626.

[415] The obligation referred to here is a legal obligation. There is some question as to the possibility of moral imperative and ethical obligation. This can also change with the development of new and better procedures to expedite the healing process and to eliminate the pain of the recovery process.

[416] Rabbi Eliezer Yehudah Waldenberg, שו״ת ציץ אליעזר, 10:25, Chapter 7; See Ovadia Yosef, "Kidney Transplants," דיני ישראל, 7 (1936); C.D. HaLevi, "Organ Transplants," ספר אסיה 4, pp. 255-257; נשמת אברהם יורה דעה, 349:3(3)1.

Halachic Limits To Altruism

Rabbi Moshe Meiselman, quotes the קָן אַבְרָהָם, by Rabbi Avraham Abele Gombiner (17th century, Poland), which indicates that a Jew is required to undergo a measure of pain and discomfort if it will prevent the loss of his fellow's life.[417] He then argues how-much-the-more-so to save his own life. This applies both to the sick person and to the living donor.

The primary medical concern for the living donor in the case of a kidney transplant is the risk involved should the remaining kidney later fail. The concern was raised primarily with regard to a donor within the immediate family of the recipient, where kidney disease is hereditary, and may appear at a later stage in the donor.

Obviously, a living donor can not donate her heart, but kidney and bone marrow transplants are within the realm of realistic possibilities. The question of self-endangerment within Jewish law is given a great deal of attention. Most authorities agree that one may not expose himself to certain death in order to save the life of another person. However, from there the opinions split.

The תַּלְמוּד יְרוּשַׁלְמִי requires self endangerment to save the life of another, while the תַּלְמוּד בַּבְלִי does not. What does it mean that the תַּלְמוּד בַּבְלִי does not require it? Is it forbidden? Even if one desires to take the chance? The next complication is that the case at hand is not just a case of taking a risk. There is a certainty from the onset that the donor will come out of this missing an organ, this could be seen as a certain danger.

If the risk is greater, for any reason, then the person earns the title חָסִיד שׁוֹטֶה, a "pious fool." In the first ruling the rescuer is obligated, in the second he is not obligated, merely allowed. One must carefully and honestly evaluate the facts in deciding on a correct course of action.[418]

---

[417] קָן אַבְרָהָם, to the י״ר אוֹרַח חַיִּים, 156.

[418] See פִּתְחֵי תְשׁוּבָה חֹשֶׁן מִשְׁפָּט, 426:2 and יוֹרֶה דֵּעָה, 157:15; עָרוּךְ הַשֻּׁלְחָן חֹשֶׁן מִשְׁפָּט, 426:4 and מִשְׁנָה בְּרוּרָה, 329:19; Cohen, "Taking Risks."

Meiselman interprets the רדב״ז as saying that anyone who wishes to help his fellow to achieve a better chance of survival may certainly do so, as long as the odds of success are better than fifty percent.[419] Here, specifically, the rabbi points out that the success rates are markedly better in cases involving immediate family members donating organs for one another.

Rabbi Moshe Herschler, another contemporary scholar, notes that it is forbidden for a family member to donate a kidney for another family member when that person may later be susceptible to the same hereditary condition.[420]

Former Sephardic Chief Rabbi Ovadia Yosef, Jerusalem, Israel, is more permissive and draws the line at fifty-fifty. He points out that רמב״ם allows one to put himself in danger in order to save a drowning fellow. Only where there is a fifty percent chance that one may die, סָפֵק שָׁקוּל , must the situation be avoided. Where there is less risk, the act is an obligation. Failure to act would make one guilty of standing idly by the impending death of his fellow. In the case of a kidney donor, the risk of death is between one and two percent.[421]

Rabbi Shaul Yisraeli adds that this permissive [contemporary] ruling only includes organs without which the body can still function completely and the risk factor of living on without them is low. If, however, the organ is necessary, and the person loses the use of the organ, the person becomes tainted, בַּעַל מוּם.[422]

---

[419] הֲלָכָה וּרְפוּאָה, 2:118.

[420] הֲלָכָה וּרְפוּאָה, 2:125.

[421] שו״ת יְחַוֶּה דַעַת, 3:84; הֲלָכָה וּרְפוּאָה, 3:61.

[422] Barkai 3 (Fall 1985), pp. 35-36.

There are some who go so far as to require the donation of organs in order to save a life. Rabbi Yechiel Michael Epstein says in the ערוך השולחן (late 19th-early 20th centuries) that "it is improper to miss an opportunity to save another life."[423] Others, including Rabbi Menachem Recanati, in the fourteenth century, shared this view.

Elective Procedures

There is a difference of opinions among contemporary authorities regarding the question whether a person is considered to own his body. According to Rabbi Shlomo Yosef Zevin a person does not own his own body.[424] Rabbi Israeli, on the other hand, is of the opinion that a person does own his body.[425] One source permits injury for benefit;[426] One source[427] does not permit injuring oneself for 'minor' benefit,[428] but does permit injuring the self for 'great' benefit.[429] Financial benefit is considered here to be 'minor,'[430] while avoidance of pain and suffering is considered 'great.'[431]

---

[423] ערוך השולחן חושן משפט, 426:4.

[424] See "Mishpat Shylock," in his לאור ההלכה.

[425] See Addenda, ibid.

[426] בבא קמא, 91b; See תפארת ישראל, מקואות 2:7; בואז 7.

[427] משנה בבא קמא, 8:6.

[428] בבא קמא, 91b, תוספות ts.v. "אלה די תנה...".

[429] פני יהושע, ibid.

[430] Cf, משנה, ibid.

[431] פני יהושע.

Rulings of the later rabbinic authorities too were divided on this question of ownership and responsibility for the human body, and permission to cause harm to the body even to a beneficial end. Rabbi Meir Abulafia (16th century) holds that under circumstances which provide for an appropriate end, one may injure oneself,[432] while Maimonides holds that one may not.[433] The latter ruling was codified by Karo.[434]

If surgery is at the request of a patient to eliminate the pain and trouble of dialysis, for example, and not required by the doctor, then it is preferable that this candidate receive a cadaver organ. This would not be considered a true need or a case of life or death. Waldenberg, in the end, allows the procedure, "as long as the overwhelming odds are favorable to the donor." He quotes Rabbi Jacob Emden who, "permits the removal of the organ in order to save the life of another human being."[435] His only condition is that the odds must be in favor of the donor and the recipient to survive.

In a responsum on cosmetic surgery, Plaut and Washofsky cite Feinstein as being in favor of allowing a person to beautify him or herself;[436] while Waldenberg does not lend credence to intent, and sees only that it is willful harm to one's self, which is forbidden.[437] Plaut and Washofsky conclude that one should "affirm the sanctity of the human body and the abhorrence of capricious manipulation of its form."[438]

---

[432] Rabbi Betzallel Ashkenazi, שיטה מקובצת, Egypt, 16th century; בבא קמא, 91b; טור חושן משפט, 420.

[433] משנה תורה הילכות חובל ומזיק, 5:1.

[434] חושן משפט, 420:31.

[435] מגדל עוז באבן בוחן, 1:83.

[436] שו"ת אגרות משה חושן משפט, II, Number 66.

[437] Rabbi Eliezer Yehudah Waldenberg, שו"ת ציץ אליעזר, Volume 11, Number 41.

[438] W. Gunther Plaut, Mark Washofsky, "Cosmetic Surgery," 5752.7, Teshuvot for the Nineties: Reform Judaism's Answers for Today's Dilemmas, New York: CCAR Press, 1997, pp. 127-132.

The issue that logically follows the discussion of ownership is the transferring of ownership, namely, the right of the donor to demand payment. Why should the donor not be entitled to payment just like Rabbi Akiva's wife got paid for giving up her hair? The complications involved in accepting or demanding payment for organ and tissue donation include:

1. Taking payment for the fulfillment of a מִצְוָה.
2. Society may legislate against this to prevent exploitation of the poor.
3. Informed consent and a firm decision to sell are necessary prerequisites for the procurement and transfer of the tissue or organ.

Based on the reasoning that it is not acceptable to harm oneself even for a just end, it is not permissible for one to sell a kidney for research or industrial purposes, if the benefit to the donor is purely financial. Selling hair, on the other hand, as seen in the מִשְׁנָה[439] (c. 200 CE), is perfectly acceptable, inasmuch as it causes no harm nor risk to the seller. Selling blood falls somewhere in the middle of these two cases. Feinstein permitted drawing blood for commercial purposes.[440] He did not allow the donation of a kidney for mere financial benefit, but he did allow transplantation to extend or save a life, or even to relieve suffering or improve a person's quality of life.

---

[439] מִשְׁנָה נְדָרִים, 9:5.

[440] שו"ת אגרות משה חושן משפט, 1:103.

Permission & Obligation

Rabbi Feinstein wrote extensively on organ donation and related medical decisions, and determined that a person is permitted (voluntarily) to expose himself to merely possible danger, סְפֵק נֶפֶשׁ שלו, in order to avert certain danger to one's fellow.[441] Feinstein calls such an act praise worthy but stresses that it is in no way obligatory. This view that allows the normally forbidden degree of risk in order to save a life is also shared by Rabbi Auerbach,[442] Rabbi Liebes,[443] and Rabbi Yehuda Gershuni.[444]

Feinstein disagrees with רדב"ז that there can ever be an obligation to risk life to save another,[445] since it is not one of the three categories for which one is to not violate even at the cost of one's own life. The Jew is to violate almost any halachah to save one's self, and where possible to save another person's life. It is always up to the individual to save the other or to save himself, says Feinstein, based on the רש"י (1040-1105) to סַנְהֶדְרִין, 74a, "סְבָרָה." Feinstein and Auerbach agree that there is no time that a person may not choose to risk her life to save another.[446]

---

[441] שו"ת אגרות משה יורה דֵעָה, 2:174 (4).

[442] נִשְׁמַת אַבְרָהָם יורה דֵעָה, p. 66.

[443] Rabbi Isaac Liebes, נוֹעַם, 14 (1971), pp. 28-35. [Annual collection of responsa, since 1958, Jerusalem, Israel.]

[444] קול צופיך, pp. 391-397.

[445] שו"ת אגרות משה יורה דֵעָה, 174:4.

[446] Cohen, "Taking Risks."

Halachic Transplantation From Living Donors

While the halachah certainly encourages the voluntary donation of skin and bone marrow, with the minimal degree of risk to one's life involved, there is no clear answer as to whether either procedure can be obligatory with the discomfort involved, which is not negligible.[447]

Observers of the halachic debate suggest that there are four fundamental problems concerning organ and tissue transplantation from living donors:

A. The danger to the donor.

B. Donation under coercion.

C. Sale of organs and tissue.

D. The legally incompetent donor.

For this discussion one may assume that the donation is an act of פיקוח נפש, saving a life. All other transplantation from a living donor is subject to different standards, limitations and restrictions.[448] Everyone is obligated to try to save the life of another human being who is in mortal danger. We read in the Torah, "You shall therefore keep my statutes and judgments: which if a man do, he shall live by them." וחי בהם [449] The rabbis conclude from this statement that, "You shall live by them and not die by them."[450]

---

[447] Jewish Medical Ethics, II:1, January 1991, pp. 29-37.

[448] See Jewish Medical Ethics, II:1, January 1991, pp. 29-37.

[449] Leviticus 18:5.

[450] תלמוד בבלי יומא, 85b.

Halachic Limits To Living-Donation

Suicide is prohibited as part of the prohibition against killing;[451] thus suicide is prohibited even in a case where it is intended to save another life. It follows that one may not remove vital tissue or organs from a living donor, or anything without which the donor can not survive, even with the consent of the donor;[452] but short of that we Jews are commanded to go to great lengths to save our own lives or the life of another human being.

Rabbi Herschel Schacter attempts to put the levels of risk and degrees of danger into language that can be applied to life and used to determine the halachic standard in actual situations. He defines real, possible danger as any situation in which there is a one in ten chance that the rescuer could face some danger to her own life or health.

If the risk is approximately a one in one hundred chance that the rescuer will face any mortal danger, the rescue is halachically optional, and can be determined by the individual. And when the danger is so slight that the chances of facing risk to life or health are only one in one thousand, or less, based on an opinion of the חתם סופר, then the life of the rescuer is not considered to be in jeopardy.[453]

---

[451] משנה תורה הלכות רוצח, 2:2.

[452] עיסור והתר, 59:38; Yehudah HaChassid, ספר חסידים, 674, 12th century, Germany.

[453] Amsel, Jewish Encyclopedia Of Moral And Ethical Issues.

Donor Conclusions

Indeed, the risk to potential living donors makes the need for cadaver organs --- and the halachic mandate for donation --- all the more urgent. It should be noted that, in addition to altruistic relatives acting as living donors, the shortage of cadaver organs has also led to "a recognized market in human body parts."[454] That is, individuals are hired to donate organs which are redundant (a kidney), "non-essential" (corneas), or regenerative (sections of liver).[455] While almost universally illegal, trade in human organs, like the "long-shot" attempts of relatives to save the lives of loved ones through living donation, demonstrates the desperate situation caused by the lack of available cadaver organs, and the personal desperation of prospective recipients.[456]

Only with time and experience do transplant operations become sufficiently dependable to constitute clear פיקוח נפש. Organ transplants were, early in their history, considered a calculated risk which might actually result in shortening the life of the recipient. At such a juncture, the permissibility of such procedures would still be at issue; mandating donation would certainly have been premature.

---

[454] Scott, <u>The Body As Property</u>, p. 3.

[455] Scott, <u>The Body As Property</u>, Chapter 1.

[456] Prouser, "Chesed or Chiyuv?" p. 6.

Kidney transplants currently enjoy an eighty to ninety percent success rate, heart transplants a success rate of eighty to ninety percent, liver transplants sixty-five to seventy percent. Combined heart-lung transplants have a success rate of approximately seventy percent.[457] Success implies restoration of the recipients quality of life and normal life expectancy. "Post-mortem donor kidney transplantation function of more than twenty years is well documented."[458]

Life-saving action is obligatory "even if the donor never knows who the beneficiary will be."[459] In the teachings of the הבעל שם טוב (1698-1760), the Rebbe taught, "that one must sacrifice oneself for the sake of love of another Jew, even for a Jew whom one has never seen."[460] In ספר הערכים חב"ד - אהבת ישראל we read,

> When, heaven forfend, news reaches one of the pain of a Jew, whether physical pain or spiritual pain, one must do all that is incumbent in order to help the other, without making any sort of calculation at all (as to whether it is an obligation to help to such an extent), even when all of the effort is based on the possibility that perhaps being able to help that person..... אהבת ישראל is like אהבת השם, and consequently it needs to be not just "with all your heart, and with all your soul" but also "with all your מאודך"--self-sacrifice.[461]

---

[457] "Questions About Organ Donation" and "Fact Sheet, Organ And Tissue Donation And Transplantation." Hartford Transplant Center.

[458] "30 Facts About Organ Donation And Transplantation," p. 3; Prouser, "Chesed or Chiyuv?" p. 7.

[459] Rabbi Moshe Tendler, "Religious Views on Organ Donation and Transplantation," <u>American Council on Transplantation Promotional Kit</u> (1989), p. 21; Prouser, "Chesed or Chiyuv?" p. 15.

[460] היום יום, p. 103.

[461] ספר הערכים חב"ד - אהבת ישראל, Chapter V, Section 2.

Most rabbinic authorities assert that living donation is permissible but not obligatory to save a life where the chance of success significantly outweighs risk to the donor. Any and all organs that can medically and legally be taken from living donors are included in this opinion. Small risk is acceptable where the chance of success is overwhelmingly good. Even major risk might be acceptable if it is the only option for treatment, and the absence of treatment means certain death to the recipient.[462]

Conclusions For Recipients

What about the recipient? Is a potential recipient always allowed to undergo transplantation? Most authorities agree, only when the prognosis is that the procedure will extend the patient's life, that is to say that the patient would live longer with the transplant than on continued dialysis, or other treatments. Quality of life, pain and convenience are not sufficient halachic justification to warrant undergoing a transplant procedure.[463]

---

[462] Rabbi Dr. David M. Feldman, Fred Rosner, M.D., Editors, Compendium on Medical Ethics: Jewish Moral, Ethical and Religious Principles in Medical Practices, Sixth Edition, New York: Federation of Jewish Philanthropies of New York, 1984, pp. 68-69.

[463] Rabbi Moshe Meiselman, הֲלָכָה וּרְפוּאָה Volume 2, pp. 114-121, Jerusalem, 1981; Rabbi Reuben Fink, "Halachic Aspects Of Organ Transplantation," Journal Of Halachic And Contemporary Law V, pp. 45-64.

II. Contemporary Halachic Rulings

In Jewish thought and law, human life enjoys an absolute, intrinsic, infinite value.[464] Some, however, believe that man is not the owner of his body, but merely the custodian, charged with the duty to preserve it from physical harm and promote health where it may be impaired. Positive and negative applications apply to this concept, but in either case the act of healing can be seen as a religious duty. Patient and doctor alike share in this responsibility. Neither patient nor doctor can refuse treatment as is needed for the preservation of life and health. This obligation even overrides many of our highly valued personal freedoms. The obligation includes preventing intentional efforts to end one's own life or the life of another human being.[465]

The Jewish legal system is guided by many dicta that lead us to decisions in situations that the rabbis never even imagined. In deciding what Judaism requires of a Jew who considers becoming a living donor, it is necessary to include the following in the decision making process:

1) Religious obligation requires all Jews to protect any human life at almost any cost.

2) A doctor is never morally entitled to withhold or withdraw services, with or without a contractual relationship with the patient, unless a more competent physician becomes available. Refusal to render required treatment is the halachic equivalent to "bloodshed," murder.

3) The patient has no right to refuse treatment deemed necessary by a physician for the preservation of life or health. There is no halachic need for the doctor to acquire the patient's consent.

---

[464] Lord Immanuel Jakobovits, Chief Rabbi of Great Britain [1966-1991], "Some Modern Responsa on Medico-Moral Problems," Jewish Medical Ethics, Volume I, Number 1, May 1988, pp. 5-16.

[465] Jakobovits, "Some Modern Responsa on Medico-Moral Problems," p. 5.

4) The doctor has certain halachic obligations which may include, if there is no patient consent, requiring the doctor to risk unlawful "assault and battery" charges for treating without the patient's consent. The halachah, however, is more concerned with the patient getting the appropriate treatment than with consent.

5) The patient should always be informed of conditions and treatment options available. However, patient consent is required only for high risk treatment, doubtful or experimental cures, or case in which there is a difference of opinion among equally competent physicians.

6) The onus of choosing between alternative treatment options is upon the physicians, never upon the patient. The patient is not medically trained, nor competent to make the choice.[466]

All of these guidelines indicate the obligations upon a Jew, according to Jakobovits, and they apply to almost any situation. Within these guidelines there are other decisions which are faced, and like in the legal system in the United States, the halachic system also functions on the basis of case law and precedent setting. It is significant to know what the rabbis of the Talmud did, what the later generations of rabbis did, and what the generations which followed them did, including the current generation of scholars and rabbis. The decisions and rulings of the rabbis are found in their published collections of questions and answers, and in Jewish legal codes, written as commentary to a previous work, or as a working guide for a specific subject or field within the halachah.

Contemporary halachic opinions and rulings on organ donation, without exception, cite the work of Rabbi Eliezer Yehudah Waldenberg, שו"ת ציץ אליעזר, a multi-volume collection of responsa written from 1943-1978; 112 of its 740 sections deal with medical-halachic problems. Of specific interest for this investigation is the following section of Waldenberg's, abridged and summarized by Dr. Avraham Steinberg:

---

[466] Jakobovits, "Some Modern Responsa on Medico-Moral Problems," p. 6.

Chapter 3 - Organ Transplantation

1. Transplantation using a healthy, living donor

1) A person is not permitted to donate an organ for transplantation if its removal exposes him to a life-threatening danger. This applies even if the prospective recipient will definitely die if the operation is not performed. One who donates under such circumstances is considered a "righteous fool."

2) If the surgical removal of an organ exposes the donor to a life-threatening danger (which may be lessened, however, by prophylactic or therapeutic administration of drugs and blood transfusions), he may not subject himself to the procedure, as one is forbidden to place oneself in a dangerous situation.

3) In the circumstances mentioned above, the surgeon is forbidden to perform such an operation. If he did and a fatality occurred, he bears responsibility for the death.

4) If, however, there is no risk to the donor, a transplant is permitted. There is, however, no religious obligation or moral imperative to donate an organ in order to save the life of another person. Provided that the donor is completely certain of his decision, the surgeon may perform such an operation.

5) Kidney transplant surgery and transplants of other internal organs usually involve a risk to the donor and, therefore, may only be performed if a group of expert physicians have decided, after precise investigations, that the procedure does not pose even a doubtful danger to the donor.

6) If the prospective recipient is a Torah scholar, one is permitted to donate even a vital organ for such a transplant. There is, however, no religious obligation to volunteer for such a donation. A great deal of consultation and reflection are necessary before such an operation could, in actuality, be performed with halachic sanction.

7) A father who has already fulfilled the commandment of procreation, by having a son and a daughter, is permitted by some authorities to donate an organ to his only son for transplantation purposes, provided that he is a decent person or, if a youngster, has not committed any delinquent acts. A great deal of consultation and reflection are necessary before such an operation could, in actuality, be performed with halachic sanction.

8) If expert physicians have certified that the organ donor is not exposed to any definite danger by the procedure, such donation would be permitted in the cases discussed in paragraphs six and seven above.[467]

Waldenberg rules that it is forbidden to use a dying patient as a donor or to hasten the death of a terminal patient. His rulings all follow the general guideline that the individual is granted every possible chance to live until the final breath, and is shown the utmost respect even after death.

Obligation To Save A Life

With all of these rules and limits in place, it is sometimes difficult to save another human being who is in danger; however, everyone is obligated to at least attempt in some way to save the life of another person who is in mortal danger. We read in Leviticus 18:5 that we are to follow God's commandments "וחי בהם", and "...live by them." "But not die by them" the sages conclude.[468] The Torah clearly implies that we must make every effort to save a life.[469] We learn that we are to work for the preservation of life at all costs, save three: idolatry, illicit sexual intercourse and the shedding of blood.[470]

---

[467] Avraham Steinberg, M.D., translated by David Simons, M.D., Jewish Medical Law, הלכות רופאים ורפואה, [Medical sections of Weinberg, שו"ת ציץ אליעזר,] Jerusalem: Geffen Publishing, 1980, pp. 124-126.

[468] יומא, 85b.

[469] Adopted by the Israeli Supreme Court, June 16, 1986.

[470] יומא, 82b; פסחים, 25a-b; סנהדרין, 74a.

Rabbi J. David Bleich, of Yeshiva University, teaches that human life is not a good to be preserved as a condition of other values but an absolute, basic, and precious good in its own right. The obligation to preserve life is commensurately all-encompassing.[471]

This obligation includes not only self-preservation, but the duty to save the life of one's fellow human being, should he or she be in mortal danger. Our obligation stems from the Torah's command, לא תעמד על דם-רעך "Do not stand idly by the blood of your neighbor."[472] This means that when we see someone in trouble we are commanded to do whatever we can to help save that life.[473] However, when we find ourselves stuck in a bad situation in which there will be a bad outcome no matter what action we might take, Rabbi Akiba teaches us שב ואל תעשה, to remain passive and let nature take it's course. In this way a person is not morally responsible for causing the outcome.

This discussion also establishes the life of the rescuer as being the first priority. The rescuer is not obligated to put his own life in jeopardy in order to attempt to rescue the person in danger. His first priority must be to safeguard his own life and safety.

If person A's life is in danger and person B can save person A without endangering his own life, person B must save person A. If B can only save A by sacrificing his own life, B may not save A. But what of the case where B can save A with some danger to his own life, but not necessarily sacrificing his own life? Does a rescuer transgress the commandment, to take heed of yourself and keep your soul diligently or take good care of yourself?[474]

---

[471] Rabbi J. David Bleich, Contemporary Halakhic Problems, p. 93.

[472] Leviticus 19:16.

[473] תלמוד בבלי סנהדרין, 73a.

[474] Deuteronomy 4:9, 4:15; Rosner, Modern Medicine And Jewish Law, 1972, pp. 166-167; Rosner, Bleich, Jewish Bioethics, 1979; Fred Rosner, "Organ Transplantation in Jewish Law," Reprinted from Jewish Life (Fall, 1969); Rosner, Tendler, Practical Medical Halacha; Rosner, Modern Medicine And Jewish Ethics.

We know that a Jew is supposed to watch out for one's own health. This means that one's first priority must be to take care of himself; we are commanded to watch after our health, diet, exercise, smoking, and the like. What obligations then can we have to help another when it is matter of life and death? Is one obligated, permitted or forbidden to give part of one's body?[475]

In the שולחן ערוך, by Karo, of which approximately eighty percent of the legal rulings are based on Maimonides, we learn that there is still a requirement to save another person's life, even in the face of danger.

כל היכול להציל ואינו מציל עובר על לא תעמוד על דם רעך

if someone sees another drowning or being assaulted, either of which represent ודאי סכנה, certain danger, and she can save the other, but does not help, she transgresses the commandment , not to stand idly by the blood of one's neighbor. Conflict arises between the obligation to save another and the obligation to safeguard one's self; how is one to deal with this apparent conflict?

According to the תלמוד ירושלמי, a person is supposed to help another, but under what conditions? One may only come to the aid of a person in danger when the rescue is בלא סכנה, not dangerous or ספק נפש שלו, there is very little danger to the rescuer.

What if there is the possibility of ספק סכנה, great danger to oneself? The person is still obligated to help. Nothing in conflict with the statement in the תלמוד ירושלמי appears anywhere in the תלמוד בבלי; so the ruling seems not to be overturned. The fact that it is not carried over to the תלמוד בבלי, according to some, means that the ruling is still binding.

---

[475] Rabbi Pinchas Lipner, "Live Organ Donor Transplantation and Jewish law," The Sixth Annual International Conference on Jewish Medical Ethics, 1995, The Institute for Jewish Medical Ethics of the Hebrew Academy of San Francisco, California. [Lecture on Tape #A51]

Rabbi Nachum Amsel, of Bar Ilan University, Tel Aviv, Israel, teaches that each and every moment of a human life has infinite value. Even when one can not save a life, but can only extend it, the Jewish tradition deems it is as if the rescuer saves that life. Even if one can only save that life for a few moments longer, Amsel teaches that there is a clear halachic obligation to do so.[476]

Amsel cites the halachic rulings of Rabbi Moshe Feinstein, who poses the question, "May one risk חיי שעה for a chance at חיי עולם?" חיי שעה is defined by Feinstein as one who could die at any moment, and will certainly die within twelve months.[477]

If one is going to certainly die if left untreated, and there is a chance that taking on some degree of risk could cure the person, and allow the person to live out a full, average life-span, assumed to be longer than the person has left at this point, and not merely extend the time that the person will be suffering and dying, then the person may choose to take on that risk.[478]

Another contemporary source, שו"ת יעקב, applies Feinstein's ruling more narrowly to one who will die within a few days.[479] Here too the risk is acceptable if there is a drug that will either cure or kill the ailing, dying person, and the medical experts agree, by a ratio of at least two to one, and recommend the drug, and the local rabbi is consulted in the decision making process. He leaves the criteria of recommending the therapy entirely up to the medical experts, and perhaps involves the judgment of the rabbi.[480]

---

[476] Nahum Amsel, Jewish Encyclopedia Of Moral And Ethical Issues, Northvale, New Jersey: Jason Aronson, 1994.

[477] שו"ת אגרות משה יורה דעה, Volume III, Number 36.

[478] שולחן ערוך אורח חיים, 329:4; Rabbi Dovid Cohen, "Taking Risks," Journal of Halachic and Contemporary Law XXXIII, Spring 1997, pp. 37-70.

[479] שו"ת אגרות משה יורה דעה, Volume III, Number 75.

[480] Cohen, "Taking Risks."

The אחיעזר and שו"ת יעקב agree that even a small chance of survival is enough to warrant risk taking where death is imminent if the person continues to live without the risk. Feinstein concurs with this view, and, in 1961, rules that people can undergo some transplant surgeries to save their own lives. But as the surgery statistics were released and the mortality rates were analyzed, Feinstein changed his opinion. By 1972, he agreed with the משנת חכמים, which says that permission is only granted in a case where the odds of success are at least fifty-fifty. Feinstein held that a warranted risk requires at least a fifty percent chance of survival; therefore, one is only sometimes allowed to risk חיי שעה, even for a chance at חיי עולם.[481]

Feinstein adds that where the odds are better than fifty-fifty, the procedure should be considered not just permissible, but mandatory. The אחיעזר takes a more lenient stance, that one who is חיי-שעה, is entitled to take on any degree of risk if done in order to regain חיי-עולם. While not in agreement, Feinstein reasons that the argument carried enough weight that one could not fault someone who followed it. In any event, the wording is understood by Feinstein to allow the חיי-שעה, the option of taking on the risk, but it is certainly not an obligation.[482]

Obligation, Permission & Prohibition

Rabbi Shlomo Zalman Auerbach (1910-1995) rules that one must do anything halachically permissible in order to save one's own life. Anything that is halachically an option should be considered an obligation.

---

[481] Cohen, "Taking Risks."

[482] Cohen, "Taking Risks."

Feinstein writes in 1972 and 1984, in שו"ת אגרות משה, III יורה דעה, 36, and later in חושן משפט, II, 75:3, one may not undergo such risk to increase the quality of חיי-שעה, but rather only for חיי-עולם. In a contrary responsum, however, in חושן משפט, 73, no. 9, 1982, he writes that no unnecessary surgery may be undergone due to the inherent risks, but Feinstein does allow surgery to alleviate pain. Although each one makes sense on its own, the rulings are apparently contradictory when taken together.[483]

Auerbach here too feels that the risk is such that the patient might choose to undergo the surgery to alleviate pain, or not, since it is a חיי-שעה, risk-taking for additional חיי-שעה, and not for חיי-עולם.[484]

Feinstein addresses risking חיי-עולם for חיי-עולם. First of all, any drug being considered for therapy must be tested and only a small minority may have died from taking it. The chances for a full recovery must be better than fifty percent and the patient must consent.[485] When one is faced with the difficult choice of risking death in order to possibly live on longer term, one is equally entitled to take a risk or not in cases where there is less than a fifty percent chance of survival; if the chance of survival is greater than fifty percent, then one must take the drug, or undergo the therapy.[486] Clearly the cure must be considerably less risky than the illness.

Dr. Avraham Steinberg[487] teaches that a terminal patient without therapy options, may choose to consent to experimental treatment, if there is ספק פיקוח נפש, any chance at all for extended life expectancy.

---

[483] Cohen, "Taking Risks."

[484] Cohen, "Taking Risks."

[485] שו"ת אגרות משה חושן משפט, II, 73:5; Cohen, "Taking Risks."

[486] שו"ת אגרות משה, ibid; Cohen, "Taking Risks."

[487] Avraham Steinberg, M.D., Director, Halachah and Biomedical Ethics Center, Hadassah Hospital, Jerusalem.

Rabbi Pinchas Lipner, Director of the Institute for Jewish Medical Ethics, recalls that Chief Rabbi Goren approved of the implanting of the first artificial heart into Barney Clark. The American press was very concerned with his future quality of life, without regard for his desire to live even with that quality of life. Who is the public to tell him what to do? Goren said that if Clark wanted to try it, and it might extend his life expectancy, let him volunteer to try it. Without a doubt Clark was going to die anyway; however, it could teach us something which could be useful later, and save other lives in the future.[488]

According to halachah, artificial medical-technological solutions to situations like the need for replacement organs are completely legitimate, permissible, and even advisable, assuming the therapy increases the patient's life expectancy; if the therapy is only to improve the patient's quality of life, there are different considerations. As is often the case in the halachic community, there are vastly differing opinions among contemporary rabbis[489] on the patient's right to risk life expectancy for improved quality of life, and not for increased life expectancy. The halachah now allows the patient to voluntarily take on some risk for significant improvement of quality of life.

---

[488] Transplantation Panel Discussion, The Sixth Annual International Conference on Jewish Medical Ethics, 1995. The Institute for Jewish Medical Ethics of the Hebrew Academy of San Francisco, California. [Lecture on Tape #A52]

[489] S. Braun, שערים המצוינים בהלכה, 190:4; J. Emdin, מור וקציעה אורח חיים, 328; נשמת אברהם יורה דעה, 155:2 (2).

Options & Alternative Solutions

Once the medical decision is made that a transplant is necessary, the issue of using a living-donor or cadaveric organ source must be addressed. In 1984, thirty percent of all dialysis patients were on the transplant waiting list. Only eight percent did not want the surgery. The other sixty-two percent were medically unsuitable candidates for the procedure. Seventy-five percent of those eligible received transplants; eighty-four percent of the procedures were successful. Of those who received living-donor organs, the three year survival rate was eighty-four percent, while the three year survival rate of those who received cadaveric organs was only fifty nine percent.[490]

Of the two choices for human organs, living-donors are preferable according to the survival statistics, however, the risk to the donor is a significant deterrent for the donor as well as for the rabbis. The question then is what other options might there be to fill this need?

There is general acceptance of the idea that human life is to be valued over animal life; the principle of פיקוח נפש overrides that of צער בעלי חיים. The animals are created subservient to man, to serve mankind, when man is living up to his full potential. This is Torah law, not Rabbinic law.[491]

When asked about xeno-transplantation, Tendler replied, "Man is not permitted to cause needless pain to animals, צער בעלי חיים, however, man is given dominion over them. If they cannot be eaten, what other use is there for pigs other than to make footballs?"

Like Tendler, Rabbi Lipner encourages the use of animals; there is no problem with using any part of any animal for any treatment to improve the well-being or health of a human being.

---

[490] Canadian Renal Failure Register, December 1985, pp. 97-119.

[491] Rabbi Dr. Moshe Tendler, "The Ethics of Organ Donations," Oolie Conference Center, Aidekman Campus, Whippany, New Jersey, Monday, December 4, 1995. [Transcribed and provided to Transweb by Dr. Mark Grebenau]

The law allows for the use of any and all organs from animals, without restrictions; however, the use of human organs from living-donors is certainly restricted. The restrictions are to protect the well-being and health of the living-donor.[492] Powerful new drugs used to prevent organ rejection[493] virtually assure the success of the graft and the survival of the recipient. The only variable then is the health and long term well-being of the donor.

With all that is taught about the value of saving a life, and all of the warning about safeguarding human life, there seems to be no easy answer. May a living donor provide a kidney to save the life of another? There is no personal benefit to the donor, and she is left without a spare kidney; the recipient's life, however, depends on this organ.

The issue of becoming a living donor, until recently did not apply to vital organs, which are referred to in the Talmud as "organs upon which life depends;"[494] they include the brain, heart, lungs, kidneys,[495] liver, pancreas and epidermis. Failure of any of these vital organs to function until recently meant death. Choices today to remedy organ failure include artificial replacement[496] and organ replacement: kidney, liver, heart, lung, pancreas transplant.[497]

---

[492] נִשְׁמַת אַבְרָהָם יורה דֵעָה, 349:3.

[493] נִשְׁמַת אַבְרָהָם יורה דֵעָה, 252:2.

[494] תְּמוּרָה, 10b-11a; Cf. רש"י and R. Bezalel Ashkenazi, שִׁיטָה מְקֻבֶּצֶת.

[495] See מִשְׁנָה חולין, 3:2; A. Steinberg, Chapters In The Pathology Of The Talmud, p. 64; C. Watts, J.R. Cambell, "Further Studies On The Effect Of Transplant In The Bovine..." Research In Veterinary Science 12 (1971), pp. 234-245.

[496] Insulin for pancreas, dialysis for kidney, machine for open heart surgery, or artificial heart replacement, etc.

[497] Rabbi Mordechai Halperin, M.D., "Modern Perspectives On Halacha And Medicine," Jewish Medical Ethics, Volume I, Number 2, May 1989.

In the case of the kidney example there are basically three halachic positions:

1) The individual has no obligation to put himself in danger, according to Waldenberg's שו"ת ציץ אליעזר. It is foolish to put oneself in danger. One is only obligated to help when it is not dangerous to oneself.

2) Where there is no serious danger involved to the life of the living-donor, it is considered a good deed and a מִצְוָה to donate, according to Rabbi Moshe Feinstein.

3) Rabbi Yosef says that it is an obligation to give tissue or an organ to a fellow human being since the danger involved in the harvesting procedure is now minimal.

Dr. Avraham Steinberg says that in Israel today that to give a kidney is a מִצְוָה; while it is not a halachic violation not to give one, it is strongly encouraged and considered a good deed.

The עָרוּךְ הַשֻּׁלְחָן teaches us that in general one should not be too preoccupied with his or her own well-being; one should sometimes take a chance for someone else.

We know that the halachah dictates that no form of suicide is allowed.[498] Therefore, we reason that one may not harvest a vital organ from a living donor, even with the consent of the donor.[499]

---

[498] מִשְׁנֶה תּוֹרָה הִלְכוֹת רוֹצֵחַ, 2:2.

[499] עִיסּוּר וְהֶתֵּר, 59:38; סֵפֶר חֲסִידִים, 674.

It is the opinion of Maimonides that if a person can donate בְּלֹא סַכָּנָה, without posing mortal danger to herself, then donating is an obligation; if on the other hand donating means וַדַּאי מֵת, the sacrificing of the donor's life, then this act is strictly forbidden. If this life-saving donation involves סָפֵק סַכָּנָה, endangering the donor's life, but not certain mortal risk, then this is a risk which is permissible.[500]

There is infinite value placed on any one human life according to the תּוֹסֶפְתָּא.[501] Maimonides[502] agrees with this opinion which is also stated in the תַּלְמוּד יְרוּשַׁלְמִי.[503] This ruling concludes that a donor must undertake סָפֵק סַכָּנָה, "reasonable risk" to save another.[504] The hard part is that there is no formulation or definition of "reasonable risk" as of yet. The best guess is that it would include any risk taken by a person in his day to day life, in her work or during the course of a day. Whatever it works out to be, this degree of risk is obligatory.[505]

Waldenberg rules that when a reliable group of doctors agree that there is no life-threatening danger involved, donation of an organ by a living-donor is permitted.[506] With regard to the recipient, if the transplant will prolong life, she is permitted to undergo the operation with all of the risks that go along with it.[507]

---

[500] תְנָחוּת סִימָתִיוֹת, ibid.

[501] תּוֹסֶפְתָּא תְּרוּמוֹת, (Lieberman, Editor) VII:20.

[502] מִשְׁנֵה תּוֹרָה יְסוֹדֵי הַתּוֹרָה, 5:5.

[503] תַּלְמוּד יְרוּשַׁלְמִי תְּרוּמוֹת, 8:4.

[504] Rabbi David Ben Zimra (רדב"ז), לְשׁוֹנוֹת הרמב"ם, Number 1582 (218).

[505] רדב"ז, ibid., Cf. Rabbi I. Zilberstein, "Endangering Physicians' Lives," <u>ASSIA: Jewish Medical Ethics</u> 41 (1986), 11:10, pp. 5-11; מִנְחַת חִינּוּךְ, 296.

[506] Rabbi Eliezer Yehudah Waldenberg, שו"ת צִיץ אֱלִיעֶזֶר, Volume 9, Number 45, Jerusalem, 1967, pp. 179-185.

[507] Rabbi Moshe Meiselman, הֲלָכָה וּרְפוּאָה, Volume 2, Jerusalem, 1981, pp. 114-121.

Waldenberg,[508] says groups of trustworthy physicians must testify that there is no danger to the life of the donor and no coercion.[509] Taken literally, this blanket statement virtually disallows ever using a live donor, as one might never find a group of physicians willing to state that there is no risk to the life of a donor.

The רדב"ז teaches us that we are not required to risk potentially fatal injury for the sake of another person.[510] Rabbi Eliezer Waldenberg concludes that a doctor who could not properly protect himself is not obligated to treat a patient with a contagious, life-threatening disease.[511] If there is a fifty-fifty chance or greater that the rescuer will die, the רדב"ז says there is no obligation. רדב"ז states that one is never obligated to sacrifice an "extremity" or an "organ" to save a life, although, if one chooses to do so, it is considered an act of חֶסֶד.

---

[508] Rabbi Eliezer Yehudah Waldenberg, שו"ת צִיץ אֱלִיעֶזֶר, Volume 9, Number 45, Jerusalem, 1967, pp. 179-185.

[509] Rosner, <u>Modern Medicine and Jewish Law</u>.

[510] Rabbi David Ben Zimra, תְּשׁוּבוֹת רדב"ז, Volume 3, Number 1052 (627).

[511] Rabbi Eliezer Yehudah Waldenberg, שו"ת צִיץ אֱלִיעֶזֶר, Volume 9, Number 45, Jerusalem, 1967, pp. 179-185.

Living Donors

Waldenberg rules on the side of caution and opposes any and all risk posed to the donor. He justifies the position held by the ירושלמי as "relying on a measure of providence to emerge unscathed." In these cases it is almost certain that the donor will emerge missing one organ. He forbids the donor from participating unless there is a consensus among the experts that there is "clear medical evidence that there is no danger to the donor whatsoever."[512] מנחת יצחק agrees, since the loss of an organ poses a certain significant danger to the donor.[513] Rabbi Pinchas Baruch Toledano also agrees with this view.[514]

If the donation in question involves some degree of danger, Waldenberg forbids it; if, on the other hand, there is no danger involved, then the donation is permitted, but not obligatory. Consultations with physicians lead Waldenberg to conclude that even the harvesting procedure is in fact life-threatening. He leaves the door open for exceptions when multiple expert medical opinions agree that a case represents no threat to the life of the donor,[515] an unlikely scenario. There is always risk that the organ will not graft, and will be rejected by the recipient. There can only be halachic obligation in a case where there is certainty that the act will save a life.[516]

---

[512] Rabbi Eliezer Yehudah Waldenberg, שו"ת ציץ אליעזר, Volume 9, Number 45, Jerusalem, 1967, pp. 179-185.

[513] Rabbi Yitzchak J. Weiss, שו"ת מנחת יצחק, 6:103.

[514] Rabbi Pinchas Baruch Toledano, Barkai 3, Fall 1985, pp. 23-36.

[515] Rabbi Eliezer Yehudah Waldenberg, שו"ת ציץ אליעזר, Volume 9, Number 45.

[516] Rabbi Eliezer Yehudah Waldenberg, שו"ת ציץ אליעזר, Volume 10, Number 25, Chapter 7; See also Rabbi Yitzchak J. Weiss, שו"ת מנחת יצחק, Volume 6, Number 103; Rabbi Isaac Liebes, נועם, Volume 14, pp. 28-111, Jerusalem, 1971; Rabbi Reuben Fink, "Halachic Aspects Of Organ Transplantation."

The currently accepted opinion in many circles is that one may offer part of one's body for transplantation into a seriously ill patient, provided that according to expert medical opinion the donor will not thereby suffer permanent harm and that this is regarded as a meritorious act. Thus, a kidney transplant from a live, healthy donor is permissible, if, according to expert medical opinion, it carries only a small risk for the donor. A competent halachic authority must first be consulted in any situation.[517]

Sale of Human Organs & Tissue

Interestingly, the halachah does not forbid the selling or buying of human organs from living donors, even if the seller is poor or in debt.[518] With more than 2,000 Israeli patients currently dependent on dialysis, and more than 700 patients waiting for transplantation, there are only about one hundred kidneys available for transplants each year, and there are no prospects in the current system of solving the shortage of kidneys for transplantation; Israel will have to face the challenge of developing a regulated system for living-donor organ donations. Even if this helps solve the kidney shortage, this will still leave the problem of shortages in other organs unresolved."[519]

---

[517] Abraham S. Abraham, M.D., F.R.C.P., The Comprehensive Guide to Medical Halachah, 37:1, (Updated and expanded version of Medical Halachah for Everyone.) Jerusalem: Feldheim, 1990, p. 172. [English version of לב אברהם]

[518] Abraham S. Abraham, The Comprehensive Guide to Medical Halacha. Feldheim, Jerusalem: 1990, p. 173.

[519] Gershon B. Grunfeld, Ph.D., "Ethical Issues in Organ Transplantation in Israel." Eubios Journal of Asian And International Bioethics 6 (1996), p. 169.

It became a halachically relevant point when the statistics showed that a patient undergoing a kidney transplant from a living donor now outlives a patient who remains on dialysis, making transplantation with an organ from a living donor a good risk for the kidney patient.[520] Living unrelated donors of kidneys for transplant led to a success rate equal to or greater than that of recipients of cadaveric organs.[521] The harvesting procedure for the living donor poses no greater threat to the donor's life than any other simple surgery involving anesthesia.

Recent cases of organ and tissue sales have involved Jewish, Israeli doctors and patients. The question is whether Judaism teaches that the sale of organs is wrong. In the ethics community it is a widely accepted assumption that the practice is considered morally reprehensible. Chief Rabbi Lau announced in January 1998, that there is no halachic reason why someone could not buy or sell an organ or tissue if there is no serious risk to the health or life of the donor.[522]

---

[520] Rabbi Mordechai Halperin, M.D., "Organ Transplants From Living Donors," ASSIA: Jewish Medical Ethics, Volume II, Number 1, January 1991.

[521] A.S. Levey, "Kidney Transplantation From Living Unrelated Donors," New England Journal of Medicine 314 (1986), p. 914; T. Weinstein, et al, "Kidney Transplantation From Related Donors," הרפואה, 115(12), 1988, pp. 403-404.

[522] "Chief Rabbi Issues Decree Allowing Sale Of Donor Organs," Israel News Service, Israel Consulate, New York, January 8, 1998:

> Chief Rabbi Yisrael Lau issued a ruling on Wednesday, January 7, 1998, in which he said that the sale of organs for transplant should be allowed if such an act does not risk the health of the donor, MA'ARIV reported.
>
> Lau said that there should be sensitivity to the fact that the poor will be more likely to donate organs. He addressed this as a delicate social problem.
>
> Director General of the Health Ministry, Prof. Gabi Barabash, opposed the Rabbi's announcement, saying that the rabbi's position was ethical and socially-minded, but not medical and professional.

Caution must be exercised since a sale involving coercion is not valid. It is likely to be the case when dealing with a poor donor; since a desperate seller is not able to give "complete consent," the sale would be null and void. Incomplete medical understanding of the consequences of the donation procedures and after affects invalidates sale. For the sale of organs and tissue from living donors to be halachically acceptable, there would need to be requirements and regulations for payment and informed consent.

Selling human organs can very easily lead to abuses; however, in a situation of life or death, if it is the only way to get an organ, there is no איסור, that is no prohibition halachically against buying or selling an organ. Nevertheless, Rabbi Tendler suggests that the practice is a dangerous one and should be avoided if possible. On the other hand, Tendler continues, if the poor need the money to survive, why not allow them to sell non-vital organs if the harvest procedure is such a low risk? It seems that there is nothing inherently wrong with the act itself, but the broader implications are what lead Tendler to recommend against allowing the sale of organs and tissue.

In his discussion of the halachic concept of a Good Samaritan, Rabbi Aaron Kirschenbaum[523] outlines the rights of a rescuer to recover money expended while freeing a captive. The rescuer is entitled to recover damages even if the person insisted that he wished not to be rescued. The legal principle was later extended to a patient who refuses treatment. The physician is obligated to treat him and may subsequently receive his fees, despite protestations of the patient.[524]

---

[523] Rabbi Aaron Kirschenbaum, "The Good Samaritan: Monetary Aspects," Journal Of Halachic And Contemporary Law XVII, pp. 83-92.

[524] Rabbi Joseph Engel, תלמוד בבלי סנהדרין, גליוני הש"ס, 73a, New York, 1949.

For the purposes of this case it is significant that the doctor has the right under Jewish law to take matters into his own hands. If the surgery becomes medically necessary at some point the doctor has the right halachically to perform the procedure even against the insistence of the patient. Here is where the halachah, the American Medical Association, and the hospital ethics committees disagree.

In Kirschenbaum's examination of the laws of compensation with regard to the returning of lost objects to their owners, we note that one who returns an object is entitled to be reimbursed for lost wages since the מִצְוָה of returning a lost object requires the sacrifice of the rescuer's pursuit of a livelihood.[525] Here the analogy can be drawn that the patient has the right to have his health returned to him in the same way that he would have the right to the return of a lost object. The donor in this case is the rescuer and is therefore obligated to do whatever can be done to return his health to him. The מִצְוָה of returning his health requires the sacrifice of the rescuer's pursuit of a livelihood. This should not be a consideration unless it becomes a matter of survival.

If a genetic match were known and the donor was unwilling, the halachah has no legal justification to force him to donate the organ. There can be no obligation upon the living to donate organs since there is always the possibility that the organ will be rejected. Only when it is certain that it will save a life can one be obligated to put oneself in jeopardy.[526]

Halachic issues arise surrounding the concepts of informed consent and coercion. We must also take into account the issues of theft and injury when we consider whether or not one might ever be compelled to give blood in a given situation.

---

[525] Kirschenbaum, "The Good Samaritan: Monetary Aspects," p. 90.

[526] Rabbi Eliezer Yehudah Waldenberg, שו"ת ציץ אליעזר, Volume 10, Number 25, Chapter 7.

Legally incompetent individuals are the other major consideration in the halachic material. A potential donor in this category should be granted a court appointed guardian for the purpose of making decisions in this medical matter, since the decision and judgment of a family member or legal guardian may be biased or otherwise distracted from the best interest of the potential donor, such as one might find in organ donation between parents and children.[527]

There is also the question of what to do with the patient who refuses treatment.[528] Such a refusal does not exempt others from forcing the patient to comply with his obligation to maintain his own health.[529] Here, an act of coercion would in fact be a מִצְוָה.[530] There are still ongoing controversies in these areas among halachic authorities.

---

[527] For a legal analysis of consent and competence under the laws within the United States see Edward N. Winitz, "Renal Transplantation: A Medical–Legal Approach," Unpublished Thesis, School Of Law, Case Western Reserve University, 1976.

[528] Cf. ספר אסיה, 3, 1982, pp. 295-325.

[529] Deuteronomy 4:9; The power to enforce might be limited to the court.

[530] Jewish law places certain limitations on the rights of a person. For example, suicide is prohibited. See תלמוד בבלי בבא בתרא, Chapter 2, regarding the obligations of the one responsible for the damage to remove the source of damage. In essence the rights of the individual are limited in accordance with the law.

Even a minute risk to the living is a significant halachic datum. Chief Rabbi Jakobovits rules that "while the gift of blood constitutes a religious obligation, it cannot be enforced, since it may entail some risk for the donor."[531] Similarly, he views higher-risk living donation of organs "as acts of supreme מִצְוָה and חוֹבָה." Jakobovits draws a parallel to the obligation to give charity: charity is a religious "obligation" which "cannot be enforced" at every juncture. One may, to a great extent, determine those occasions on which one will or will not give charity. In the same manner, according to Jakobovits' argument, one may elect whether or not to preserve another's life at one's own risk. Every act of פִּיקוּחַ נֶפֶשׁ is a מִצְוָה, fulfillment of a "religious obligation"; not every such opportunity for פִּיקוּחַ נֶפֶשׁ, however, is a חוֹבָה, a mandatory act.

Risk to life, statistically insignificant or profound, constitutes a mitigating factor which renders living donation commendable but optional. This risk is, by definition, completely absent in post-mortem donation. With the absence of risk as a mitigating factor, post-mortem organ donation is, logically, rendered obligatory.[532]

Contemporary Rulings

Chief Rabbi, Lord Jakobovits states that a living donor may endanger his own life to donate a "spare" organ to save a life if the probability of saving the life is substantially greater than the risk to the donor.[533] "This principle is applicable to all organ transplantation where living-donors are used as a source for the organ in question."[534]

---

[531] Jakobovits, Jewish Medical Ethics, p. 285.

[532] Prouser, "Chesed or Chiyuv?" pp. 5-6.

[533] Personal communication with Rosner, January 8, 1968. August 1, 1968; Rosner, Modern Medicine and Jewish Law.

[534] Rosner, Modern Medicine and Jewish Ethics, p. 287.

Chief Rabbi Ovadia Yosef rules that it is at least permissible, perhaps even obligatory for a person to subject himself to a small risk to save the life of another.[535]

Rabbi Jacob Joseph Weiss agrees that one may accept small risk, such as anesthesia, surgery and living with one kidney, to save the life of another.[536]

Rabbi Waldenberg discusses the permissibility or obligation of a healthy individual donating an organ to save a desperately ill person from certain death.[537] He rules that only if a group of trustworthy physicians testify בְּלֹא סַכָּנָה, that there is no danger to life of donor, and if the potential donor is not coerced into consenting is this type of donation allowed.

Rabbi Moshe Meiselman discusses the risk-benefit ratio. He rules that one is obligated to give blood and or skin if it is needed to save a life since the risk to the donor is so extremely small. He does not say call kidney donation obligatory, but rather an act of "חֶסֶד."[538]

Rabbi Moshe Herschler allows person to accept small risk to donate kidney to save a life, but not to alleviate suffering.[539]

---

[535] Chief Rabbi Ovadia Yosef, "The Law of Kidney Transplantation," הַלָכָה ורפואה, 3(1983), pp. 61-63.

[536] Rabbi Jacob Joseph Weiss, שו"ת מִנְחַת יִצְחָק, Part 6, Number 104:2.

[537] Rabbi Eliezer Yehudah Waldenberg, שו"ת ציץ אליעזר, Volume 10, Number 25:7.

[538] Rabbi Moshe Meiselman, "Halachic Questions In Kidney Transplants," הַלָכָה ורפואה, 2 (1981), pp. 114-121.

[539] Rabbi Moshe Herschler, "Kidney Transplants From Mentally Incompetent Donors," הַלָכָה ורפואה, 2 (1981), pp. 122-127.

The majority opinion is to allow living donation in qualifying cases; while the minority opinion is to obligate people to living-donation. Halachic authorities do not agree as to which circumstances would obligate or allow the halachic use of coercion. The refusal of treatment by a patient does not alleviate the obligations of others to help save that life. Coercion in this case could become a מִצְוָה, and would no longer be considered injury.[540] A potential donor can be coerced to save a life בְּלֹא סַכָּנָה, where there is no danger involved to the life of the donor.[541] And when a donor chooses to do donate, it is considered "an act of חֲסִידוּת, loving kindness of the highest order."[542]

Former Health Minister Tzachi Hanegbi decided that living-donors of kidneys could be not only siblings, parents or children, but also spouses, uncles, aunts, cousins, grandparents and grandchildren.[543]

Chief Rabbi Ovadia Yosef declared that since there is only a negligible medical risk to one donating a kidney to someone else in need, this is permitted, perhaps even obligatory at times.[544]

---

[540] See תַּלְמוּד בַּבְלִי בָּבָא בַּתְרָא, Chapter 2.

[541] See נִשְׁמַת אַבְרָהָם, Addenda, 80:12; נִשְׁמַת אַבְרָהָם, 80:1.

[542] Rosner, Modern Medicine and Jewish Ethics, 1991, p. 288; J.D. Bleich, "Organ Transplants," Judaism and Healing, New York, Ktav: 1981, pp. 129-133.

[543] Jerusalem Post Internet Edition, Thursday, November 14, 1996.

[544] "Ovadia Yosef Rules Kidney Donations Permissible, Even Obligatory," Israel News Service, Israel Consulate, New York, November 18, 1996:

> Former Sephardic Chief Rabbi Ovadia Yosef published a Jewish-law ruling on Wednesday, November 13, 1996, permitting those who can afford to spare a kidney to donate one to people in need of transplants, HA'ARETZ reported.
>
> The ruling, or Halacha, applies both to living donors and to those newly deceased, and designates organ donation a Mitzvah -- a Jewish- law commandment.
>
> The new Halacha is being viewed as a breakthrough in the effort to involve the traditional and religious population in the practice of organ donation.
>
> According to HA'ARETZ, the new Halacha was issued in coordination with the efforts of former Health Minister Tzachi Hanegbi.

Blood, Skin & Marrow

A donor is halachically obligated to give blood in order to save the life of another human being. נִשְׁמַת אַבְרָהָם יורה דעה, 349:3 at 3:2 refers to Auerbach's opinion that one must surely donate bone marrow for a transplant since there is no risk involved. He is unconcerned with the required anesthesia for this procedure.[545]

The case of kidneys is not so clear. Some say that the donor may suffer long term physical or psychological effects that may shorten his life span, which would disallow this type of a donation, even to save a life.[546] Even if this is proven not to be the case, the pain and suffering involved in the recovery can be major.[547] Therefore, while this procedure for lifesaving purposes may not be prohibited, neither is it obligatory.

Blood transfusion is necessary to treat injury or for surgery in which there is significant loss of blood. Minimal danger is involved in blood donation, and it requires only minor inconvenience.

Donation of skin and bone are clearly permissible, although, it is unclear as to whether or not there is any obligation. Certainly, the donation is strongly encouraged halachically.

---

[545] Cohen, "Taking Risks."

[546] J.S. Tapson, "The Risk of Donor Nephrectomy," International Journal of Artificial Organs 8 (1), 1985, pp. 13-16; See Z. Nebenzahl, "Shortening Life," in אַסְיָא ספר, 5, pp. 259-260.

[547] Tapson, "The Risk of Donor Nephrectomy."

Of all the various conditions treated with bone marrow transfusions (transplants), about fifty percent of the patients concerned survive with these procedures; almost all would die without them.[548] The only relevant threat to the donor is the anesthesia. Another consideration to factor into the decision is substantial discomfort after the harvesting procedure. This procedure is considered not to be a substantial threat to the life of the donor.

Skin donations may save a burn victim's life. There is no significant threat to the life of the donor, although, there is no doubt substantial pain, discomfort involved in donating skin.

The issue of kidney donation involves a controversy over the long term health risk to the living-donor.[549] If there is a high probability of shortening the life of the living-donor, the risk is not acceptable.[550] The halachah views the shortening of a life as equivalent to murder.[551] Even if the probability of shortening the life of the donor is not high, kidney donation involves significant pain and suffering,[552] therefore, where donation is allowed, it is not obligatory.

Others use the prohibition against shortening the life of the donor, by removing an organ,[553] as the grounds to show that there can be no obligation to donate, even in a case without risk. Even here, though, the donation is seen as a מצוה of great merit.[554]

---

[548] See Harrison, Principles of Internal Medicine, Tenth Edition, 1983, p. 807.

[549] Tapson, "The Risk of Donor Nephrectomy."

[550] See סוטה, 8:6; שו"ת ציץ אליעזר, Voolume 12 Number 57.

[551] Z. Nebenzahl, "Shortening Life," ספר אסיא, 5, pp. 259-260.

[552] See Tapson, "The Risk of Donor Nephrectomy."

[553] רדב"ז, ibid; שו"ת ציץ אליעזר, 9:45; מנחת יצחק, 6:103.

[554] שו"ת ציץ אליעזר, Volume 10, Number 25, Chapter 7; See Ovadia Yosef, "Kidney Transplants," דיני ישראל, 7 (1936); C.D. HaLevey, "Organ Transplants," ספר אסיא, 4, pp. 255-257; נשמת אברהם יורה דעה, 349:3(3)1

Blood donation and bone marrow are both regenerative tissue, and, therefore, it is considered a מצוה to give both. The question, then, is: if one does not give voluntarily, can the halachah be used to force them to donate?

Some say: yes, the potential donor is in violation, if he chooses not to give, and he should, therefore, be coerced to donate by the rabbis, since this is a life-or-death situation. Some would go so far as to force donation; others disagree.

Cornea donation is an interesting case. While it may not be associated with a life or death situation on the scientific scale, the risks to a person without sight are everywhere, and to restore that person's sight literally saves her life. This type of donation therefore is encouraged.

Overview

Rabbi Tendler spoke to a group of students in New Jersey about donation and speaks of living-donors in his remarks. He noted that "ignorance remains as the greatest barrier to more organ donation by Jews; ignorance of the actual halachah is the greatest enemy of organ donation."[555]

---

[555] **Rabbi Dr. Moshe Tendler, "The Ethics of Organ Donations," Oolie Conference Center, Aidekman Campus, Whippany, New Jersey, Monday, December 4, 1995. [Transcribed and provided to the Transweb website by Dr. Mark Grebenau]**

There is an obligation to provide an organ, providing there is no risk to the donor, בְּלֹא סַכָּנָה. Just as one has no right to refuse life-saving therapy, one has no right to withhold vital tissue, if life is at stake. Halachah does not obligate donation from a living person if there is risk although it remains a praiseworthy thing to do; likewise, a living person is not permitted to make a donation at all, if donation is in itself life-threatening, וַדַּאי סַכָּנָה. Accordingly, some organs can only come from a dead donor who still has 'vitality.' The living donor's life comes first; thus, there are still problems with liver and lung lobe donation; for procedures like kidney and bone marrow donation, voluntary, uncoerced consent must be obtained, free from family sanctions. If there is a matched kidney or bone marrow donor, the means to obtain such consent is to tell the potential donor, and not to tell the family; if he refuses, then the family can be told that the person was not a match, and this avoids repercussions.

The issue of motivation – can a donor be paid? Others, like doctors and hospitals, do not provide services free; this is, in some countries, a matter of debate – 'co-modification' of tissues. Does this payment destroy the sanctity of human life? Currently, tissues like blood, sperm, and ova are paid for! The future might involve the financially well off, but physically sick, buying organs from the needy who are physically well.[556]

Nine people die every day waiting for an organ transplant in America. If everybody donated organs at death, there would be no waiting list. Human life is identical. Jew or non-Jew, חָסִיד or secularist. Saving any human life is halachically mandated so that we transgress the laws of Shabbat to do so. If that law considering human life identical is violated, you've transgressed Torah law and endangered Jews throughout the world[557]

---

[556] Tendler, "The Ethics of Organ Donations," ibid.

[557] See also Hannah Geldwerth-Sprecher, Stanley Sprechler, "Refusing The Milk Of Human Kindness," Jewish Law Association Studies IX: The London 1996 Conference Volume, Edward Goldman, Editor, Chapter 17, pp. 273-287.

The overwhelming majority of authorities are in favor of saving a life when possible, and are at the same time staunch protectors of the life of the rescuer. There is no question that it is a possitive act when one saves a life, however, there is a point at which one must recognize that the degree of risk is dispropotionate to the expected outcome. There is a point at which one is better off accepting that there is nothing that can be done to save this person. It is when this point is reached and the rescuer still insists on taking on the risk that the rabbis look with skeptical eyes and question whether it is worth allowing this degree of risk, in situations where the best case scenario is not a bright outcome. While some will allow risk for short success, the majority prefer to see a possibility for full, long term recovery, and for a risk-benefit ratio which is overwhelmingly in favor of both, the recipient and the donor.

Chapter 6.

Non-Orthodox Interpretations Of Traditional Rabbinic Sources

I. Responsa Of The Conservative Movement

Almost all of the Jewish bio-medical ethics writing today is in the style of the traditional Jewish legal system, using traditional reasoning and method,[448] regardless of the affiliation within Judaism of the writer. Reform, Conservative and Orthodox scholars have all worked in the field and offered their conclusions. As might be expected, they are sometimes in agreement, and they sometimes differ in the details, but not in principle; often, however, they are in direct opposition to one another.[449]

To begin with, the writers from these three mainstream segments of North American Jewry differ in the way that they interpret the same rabbinic texts. Unlike the Orthodox rulings formulated from the texts alone, with little additional input or influence, Reform and Conservative opinions are shaped by the addition of historical and cross-cultural considerations to the traditional rabbinic texts. Most of all, they differ in their application of the sources to modern situations and the degree to which their constituents value and follow these rulings. What links them all -- Orthodox, Conservative and Reform -- is the fact that they look toward the same past experiences and the same laws and statutes as sources from which they work toward an answer.

---

[448] See explanation of the halachic, traditional reasoning and method of working in Chapter 1.

[449] Elliot N. Dorff, Louis E. Newman, Editors, Contemporary Jewish Ethics and Morality, New York: Oxford University Press, 1995; Elliot N. Dorff, "A Methodology for Jewish Medical Ethics," pp. 161-176.

The opinions and decisions of the Conservative Movement come from the Rabbinical Assembly's "Committee on Jewish Law and Standards," at the Jewish Theological Seminary in New York City. Their rulings and judgments are handed down to rabbis within the Movement, who in turn apply them and set the standard within their own community or in a particular situation.

According to the "Summary Index" of the Committee on Jewish Law and Standards opinions, under "Biomedical Issues,"[450] there have been a variety of decisions that have touched on the issue of organs and tissue donation from living-donors and portray the Movement's direction and tendencies in this field.

Organ donation in the Conservative Movement is allowed only for the purpose of transplantation, and not for education, research or experimentation.[451] Tissue from a dead person may be used to save the life of a person or merely to enhance it.[452]

Specific rulings give permission for cornea donation from cadaveric donors only.[453] Similarly, one may donate upon death as well as accept a donated eardrum, kidney,[454] or liver, from a cadaveric donor. It is considered a meritorious act to sign one's driver's license in order to allow the donation of all major organs upon death.[455] There is also a ruling giving specific permission to donate the pituitary gland after death to benefit children with growth deficiencies who need the hormone contained within the gland.[456]

---

[450] "Biomedical Issues, Summary Index," Committee On Jewish Law And Standards, Rabbinic Assembly, Jewish Theological Seminary, 1:3-1:4.

[451] Committee On Jewish Law And Standards, Rabbinic Assembly, 02-06-89.

[452] Committee On Jewish Law And Standards, Rabbinic Assembly, 12-27-88.

[453] תְּשׁוּבָה by Theodore Friedman, Proceedings Of The Rabbinic Assembly, 1953, pp. 41-4.

[454] Committee On Jewish Law And Standards, Rabbinic Assembly, 11-27-67.

[455] Committee On Jewish Law And Standards, Rabbinic Assembly, 12-15-75B, 11-09-77.

[456] Committee On Jewish Law And Standards, Rabbinic Assembly, 09-07-77.

With regard to living donors, the committee holds that a (living) person is not under a חוֹבָה, obligated by the halachah, to donate a kidney to a relative in need. There can, however, be no halachic obligation due to the of significant risk involved, and the possible danger, סָפֵק סַכָּנָה. However, if there is no immediate risk to the life or health of the donor, בְּלֹא סַכָּנָה, then donation is מוּתָּר, a permissible option.[457]

There are several related rulings in which the Committee affirms that a person in physical danger may use parts of any animal, even a pig for transplantation or grafting.[458] The Conservative Movement is open to ideas that are in the interest of the well-being of the recipient and the safety of the donor's life. While the Committee has addressed the aforementioned ideas at times and has laid out the groundwork for later decision making by Conservative rabbis, there is a noticeable absence of recent work from the Movement, that stresses the gravity of the scarcity of organs for transplantation. No doubt this scarcity affects a significant number within the Movement.

Outside of the Jewish Theological Seminary and the Rabbinical Assembly, there are some Conservative rabbis who are publishing work in the field. Rabbi Elliot Dorff has just completed a manuscript in which he addresses bio-medical ethics and issues such as organ and tissue donation from his Conservative Jewish perspective.

---

[457] Committee On Jewish Law And Standards, Rabbinic Assembly, 01-29-92.

[458] Committee On Jewish Law And Standards, Rabbinic Assembly, 08-07-75, 03-02-76, 11-02-77, 03-13-79.

Dorff maintains that it may be assumed that an individual (Jew) wanted to donate all useful organs upon his or her death in order to save the life of another person. This assertion is of significance especially in a situation where there was no consent given before death. Dorff considers it an obvious choice; it is a logical assumption if the person could still indicate her will, that the deceased would be honored to help another human being continue to live.[459]

We are obligated to provide whatever medical care we can to an individual in need, although, there is a limit to the amount of risk that care may involve to the care-giver. One may not be compelled to do anything for another person which threatens one's own life.

Blood and bone marrow donation is a clear mandate for Dorff. Donors incur minimal, if any, risk in the donation process, categorizing it as, בְּלֹא סַכָּנָה, danger free. Additionally, the donated blood or bone marrow will most likely literally save a life.[460]

Jewish organizations, like synagogues, Jewish Community Centers and Hillels should consider it nothing less than חוֹבָה, a Jewish imperative, to organize blood drives at least four times a year. Jews should see it as a moral duty, an act of חֶסֶד, and as a legal Jewish imperative to donate blood as often as they can safely donate.[461]

---

[459] Elliot N. Dorff, "Jewish Perspective On Organ And Tissue Transplantation," Coalition for the Advancement of Jewish Education (CAJE), November 24, 1996, p. 6, Idem, "Organ And Tissue Transplantation From A Jewish Perspective," (©, 1995), A Time To Be Born, Philadelphia: Jewish Publication Society, Expected date of publication - - August 1998.

[460] Dorff, "Jewish Perspective On Organ And Tissue Transplantation," ibid.

[461] It is generally thought to be safe to donate blood five times per year; Dorff, "Jewish Perspective On Organ And Tissue Transplantation," ibid.

Jews should take the blood test which puts their bone marrow type into the national computer so that they will know and be afforded the opportunity to save a life if there is a match from the list of patients in need of bone marrow in order to live. Donation of an organ, part of an organ, or tissue, involves surgery;and surgery involves risk. Risk taking is generally מֻתָּר, permitted, rules Dorff, but undergoing personal risk is not חוֹבָה, obligatory.[462]

Major risk to life or health, וַדַּאי סַכָּנָה, or סָפֵק סַכָּנַת-נְפָשׁוֹת, is the point at which we draw the line to say that the living donation is no longer permitted. This is the accepted halachic general guideline, as ruled on by Lord Immanuel Jakobovits. One may voluntarily undergo some degree of risk or danger to give a "spare" organ to save someone's life; however, the probability of saving the recipient's life must be significantly greater than the risk to the donor's life or health. Therefore, it is generally considered an act of supreme charity, חסד and צְדָקָה, to donate a kidney, but not חוֹבָה, an obligation.[463]

This general opinion is shared by most Orthodox, Conservative[464] and Reform authorities, as we have seen in chapter five and see here in chapter six.

---

[462] Dorff, "Jewish Perspective On Organ And Tissue Transplantation," ibid.

[463] Immanuel Jakobovits, Jewish Medical Ethics, pp. 96-98, 291.

[464] This Conservative opinion can only be found in Elliot N. Dorff, Choose Life: A Jewish Perspective On Medical Ethics, Los Angeles: University of Judaism, 1985, p. 23.

II. Responsa Of The Reform Movement

The Reform responsa literature provides many answers which can be used to triangulate and form the Reform Jewish answer to the question of tissue and organ donation from living donors. Most recently the Union Of American Hebrew Congregations, Committee On Bio-ethics published a program guide on, "Organ Donation And Transplantation," with the United States Department Of Health And Human Services, Health Resources And Services Administration.[465] The program guide provides a survey of Reform responsa over the years and shows how committed the Reform Movement is and has always been to פִּקּוּחַ נֶפֶשׁ.

From as far back as 1953, the Movement has officially been in favor of transplantation for the purpose of saving a life. Rabbi Israel Bettan[466] and Rabbi Solomon Freehof[467] each favored the donation and use of the eyes and cornea from cadavers for the purpose of transplantation.[468] Discussion continued on the topic of cadaveric organs and tissue donation for over a decade,[469] as the transplantation field emerged and expanded in the medical community.

---

[465] Rabbi Richard F. Address (Cincinnati, 1972), Director, "Organ Donation And Transplantation," Program Guide IX, Union of American Hebrew Congregations — Committee on Bio-ethics, United States Department of Health and Human Services — Health Resources and Services Administration, Spring 1997.

[466] Rabbi Israel Bettan: Ordained, 1912, Hebrew Union College, Cincinnati.

[467] Rabbi Solomon Freehof: Ordained, 1915, Hebrew Union College, Cincinnati.

[468] Israel Bettan, "Transplanting The Eyes Of Deceased Persons," American Reform Responsa, LXIII, 1953, pp. 152-153; Solomon B. Freehof, "Use Of The Cornea Of The Dead," American Reform Responsa, LXVI, 1956, pp. 104-107.

[469] Solomon B. Freehof, "Donating A Body To Science," Reform Responsa, 1960, pp. 130-131.

Freehof addresses the question of organ transplantation in 1968.[470] He refers to פְּסָחִים, 25a which justifies using any and all means, except the three cardinal sins,[471] to save a life, even that which is forbidden by Torah. שֻׁלְחָן עָרוּךְ יוֹרֶה דֵּעָה, 155:3, teaches that if a doctor tells a patient that this is what will keep the patient from dying, regardless of the prohibition, the patient is to take the remedy. The primacy of saving a life outweighs all other obligations and prohibitions. פִּיקּוּחַ נֶפֶשׁ דּוֹחֶה אֶת הַכֹּל.

Freehof refers to the rulings of Rabbi Moshe Feinstein,[472] who discusses bone transplants. Freehof concludes with a discussion of Maimonides, who indicates that because the patient is in danger of death, סָפֵק סַכָּנַת-נְפָשׁוֹת, and this treatment might possibly help, סָפֵק פִּיקּוּחַ נֶפֶשׁ, it is מוּתָּר, permitted, by the Jewish tradition. Freehof again emphasizes the importance of cadaveric organ and tissue donation in a 1974 responsum.[473]

By 1980, Freehof and the Responsa Committee of the Central Conference of American Rabbis were ready to address the question of how Judaism guides Reform Jews to deal with organ and tissue donation from living donors.[474]

The question brought to the committee asks about a case involving two sisters. One sister needs a kidney; the other sister is a healthy potential living donor. The questioner asks whether there is an ethical duty for the healthy sister to become a living donor and to try to help save her ailing sister? Does the sick sister have the right to demand the donation from her healthy sibling? And is the nature of the relationship the sisters have relevant?

---

[470] Solomon B. Freehof, "Surgical Transplants," American Reform Responsa, LXXVIII, 1968, pp. 118-121; Reprinted in: Walter Jacob, American Reform Responsa, Number 86, 1983, p. 291.

[471] That which is connected to 1) idolatry, 2) prohibited sexual relations punishable by כָּרֵת, and 3) bloodshed.

[472] Moshe Feinstein, שו"ת אִגְּרוֹת מֹשֶׁה, Numbers 220, 230.

[473] Solomon B. Freehof, "Bequeathing Parts Of The Body," Contemporary Reform Responsa, 1974, pp. 216-224.

[474] Solomon B. Freehof, "Kidney Transplants," New Reform Responsa, 1981, p. 62.

Freehof begins in halachic fashion with the earliest sources and then works his way through the later codes and commentaries. His answer begins from the Torah, Leviticus 19:16, לֹא תַעֲמֹד עַל דַּם רֵעֶךָ "Do not stand idly by the blood of your neighbor." The next step, as seen in previous references by Orthodox and Conservative scholars, is to the Talmud. The story is told from סַנְהֶדְרִין, 73a. When one notices a neighbor drowning in the river or someone being attacked by a gang of robbers, that person must do something to help save the victim. כָּל הַיָּכוֹל לְהַצִּיל וְאֵינוֹ הַצִּיל עוֹבֵר עַל לֹא תַעֲמֹד עַל דַּם רֵעֶךָ. Anyone who is able to help must do so or else this is a violation of the prohibition, "Stand not idly by the blood of they neighbor."

It is necessary to weigh the degree of risk in order to make a decision. Is the danger real, וַדַּאי סַכָּנָה? Is the danger life-threatening, סָפֵק סַכָּנַת-נְפָשׁוֹת? Or is there only the potential for danger, סָפֵק סַכָּנָה? The greater the need of the victim, the greater the acceptable level of risk one may undergo in order to save the person.

On the other hand we must also take into account the probability of the success of the rescue mission. Is the rescuer in life-threatening danger, וַדַּאי סַכָּנָה, or סָפֵק סַכָּנַת-נְפָשׁוֹת? Or is there only potential danger, סָפֵק סַכָּנָה? One is allowed much less latitude if the effort is for סָפֵק פִּיקּוּחַ נֶפֶשׁ, the possibility that one could save a life.

We are then presented with the story from the רדב"ז, of a Jew who is told he must cut off an arm or a leg or else the ruler will kill a Jewish hostage he is holding.[475] We are told that the רדב"ז rules that one is not duty bound to save one life at the risk of losing another life. An individual who chooses to take on this degree of risk in order to save another person's life is called a חָסִיד שׁוֹטֶה, a "pious fool."

---

[475] Eliezer Yehudah Waldenberg, שו"ת צִיץ אֱלִיעֶזֶר , Volume 10, Number 7, quotes תְּשׁוּבוֹת הָרדב"ז,- Volume III, Number 625.

It is significant that in the story there is no assurance or guarantee that the hostage will be saved. The rescuer could cut off his limb, and the ruler could renege on his agreed plan and kill the hostage. Likewise, with a rescue attempt involving tissue or organ donation, there is no medical surety that cure is certain. While there is agreement that הַכֹּל פִּיקּוּחַ נֶפֶשׁ דוחה את, when the issue is the potential saving of a life, סְפֵק פִּיקּוּחַ נֶפֶשׁ, the degree of risk which is reasonable to assume decreases significantly. Waldenberg indicates that the וַדאי סַכָּנָה, certain risk of danger, for סְפֵק פִּיקּוּחַ נֶפֶשׁ, the chance of saving a life, might even be a prohibited if the ratio is poor enough.

If in the future technology improves and the risk of danger to the donor is eliminated, בְּלֹא סַכָּנָה, and the success rate for the recipient increases, it may then become מוּתָּר, permissible. If this becomes the case, it would still be allowed only as a voluntary decision of the potential living donor. This is a clear limit indicating that donation can not become חוֹבָה, obligatory, nor can living-donation be coerced or forced halachically.[476] Halachically one cannot be required to take on וַדאי סַכָּנָה, certain danger; this is especially true for a case where there is only סְפֵק פִּיקּוּחַ נֶפֶשׁ, the possibility of saving a life.

---

[476] This is interesting to note since the most recent rulings of the Israeli Chief Rabbinate introduce the possibility of obligation, and thereby, the possibility of using coercion to force a living donor.

Since so many living donors are parents and children of the recipients it is relevant to look at how Rabbi Walter Jacob[477] answers the question, "How far must we take the commandment to 'Honor Your Father (and Mother) ?'" Tradition encourages the younger generation to be independent. While there are certain obligations that children have to their parents, including seeing to their "physical and psychological needs," there is certainly a limit which would preclude a child catering endlessly to parents "every whim and desire."[478]

All of this leads us back to the original and central question involved in our decision. What level of risk or danger would be considered acceptable? And what levels would we consider to be obligatory or forbidden?

In March, 1986, the Central Conference of American Rabbis affirmed by resolution the practice of organ donation. The resolution addresses cadaveric donation only, however, and does not mention living donation.

In a more recent query, the committee debates the right of the potential recipient to refuse treatment. The question to the committee is, may an elderly woman dying of late stage renal disease and heart failure, who is told she must go back onto dialysis after eight years off the machines, refuse? The committee finds she is within her right to refuse the dialysis treatment in order to enjoy the time she had left.[479]

---

[477] Rabbi Walter Jacob: Ordained, 1955, D.H.L., 1961, Hebrew Union College, Cincinnati.

[478] Walter Jacob, "How Far Must We Take The Commandment To 'Honor Your Father?'" American Reform Responsa, New York: Central Conference of American Rabbis, 1983, Number 53, p. 139.

[479] Walter Jacob, Questions and Reform Jewish Answers: New American Reform Responsa, New York: Central Conference of American Rabbis, 1992, Number 157, p. 259.

Unlike the situation of an ailing elderly patient who rejects medical advice which will prolong pain and suffering, the case of a young person who potentially has many years ahead of him is another story, altogether. No one could argue that a young person had lived out a life-time of years.

A Reform תשובה on "Consent for a Medical Operation" indicates, interestingly enough, that it is the responsibility of the patient to seek out the best physician in the field. The patient should then place the physician in charge of the decision making from that point on. Unless the physician treats the patient in a manner which is irresponsible, there is no question halachically of liability or of consent. Whatever the doctor thinks best, the doctor does. The patient's only recourse if unhappy, traditionally speaking, is to seek out a new physician.[480]

---

[480] Walter Jacob, "Consent For A Medical Operation," Questions And Reform Jewish Answers, Number 148, p. 236.

Jacob mentions the subject of living donors in a 1987 תשובה about human organ banks.[481] Rabbi W. Gunther Plaut[482] and Rabbi Dr. Mark Washofsky[483] cover the related issues of undue hardship and burden and the quality of life. They rule that the impact that an unhealthy baby might have on the lives of older siblings is not justification for a mother to abort a pregnancy.[484] The unborn child has some status within the Jewish tradition, although it is not sufficient to compromise the life of the mother, or any other living person. Quality of life and comfort are not grounds for allowing an abortion, nor are they sufficient justification to allow another to take on ספק סכנה-נפשות, mortal risk, by donating an organ or tissue as a living donor.

Former Chief Rabbi Ovadia Yosef rules that a Jew may take on ספק סכנה to save another from ודאי סכנה or ודאי מת.[485] While the ruling is clearly disputed by some authorities, most of the political considerations in the responsum with regard to Israel are not applicable to situations involving an individual saving another individual by donating body parts to save the other, not ransoming the at risk individual with money.

This is justification for living donors in cases where there is minimal risk and a reasonable surety of success. While some disagree, this opinion certainly leaves enough room to justify allowing an individual the freedom to choose to take on a degree of risk.

---

[481] Walter Jacob, "Banks For Human Organs," Contemporary American Reform Responsa, pp. 128-133.

[482] Rabbi W. Gunther Plaut: Ordained, 1939, Hebrew Union College, Cincinnati.

[483] Rabbi Dr. Mark Washofsky: Ordained, 1980, Ph.D., 1987, Hebrew Union College-Jewish Institute of Religion, Cincinnati.

[484] W. Gunther Plaut, Mark Washofsky, "Abortion To Save Siblings From Suffering," 5755.13, Teshuvot For The Nineties: Reform Judaism's Answers For Today's Dilemmas, New York: Central Conference of American Rabbis, 1997, pp. 171-176.

[485] Plaut, Washofsky, "On The Redemption Of Captives," 5753.5, Teshuvot For The Nineties: Reform Judaism's Answers For Today's Dilemmas, pp. 321-326.

A significant consideration for decision making is the intent of the patient. Halachically, a patient is not allowed to intentionally cause harm to or mutilate himself, but at the same time, there are times and situations in which allowances are made for patients to take certain risks or steps that would not ordinarily be acceptable. If the intent of the patient is to attempt to live, to cure an ailment which is going to kill him otherwise, וַדַּאי מֵת, there is an urgency, a desperation that allows the patient an added measure of leniency, since the risk of the treatment can not be significantly more than the danger without the treatment.[486]

Washofsky teaches that, וַדַּאי סַכָּנָה, certain danger and סָפֵק סַכָּנָה, possible danger are the two possible categories of danger that one can face. It is unclear as to exactly where the gray line should be drawn; there is no bottom line, no agreed upon clear definition.[487]

In the tragic incident in a Ma'alot school, Chief Rabbi Shlomo Goren said that it was halachically acceptable for the teachers to jump out of the classroom windows to save themselves. They were not obligated to stay in the classroom to attempt to save the children, סְפֵק פִּקּוּחַ נֶפֶשׁ, while sacrificing their own lives.

Our primary obligation according to the halachah is to stay alive. Only then comes our obligation to save others. This is the case even for parents, children and relatives. Parents have other obligations to equip children for life, teach them to swim, how to make a living, and how to care for themselves, but nowhere does it say that a parent must or may sacrifice himself or herself for the life of a child. Clearly this is a completely emotional issue; we should always try to save the life of another person in danger, but only to a point. Some degree of risk, סָפֵק סַכָּנָה, on the one hand, is acceptable, perhaps even a moral imperative, but suicide, וַדַּאי מֵת, on the other hand, is forbidden, even to surely save another person from certain death.

---

[486] Plaut, Washofsky, "Testing Emergency Medical Procedures Without The Consent Of The Patient," 5755.11, Teshuvot For The Nineties: Reform Judaism's Answers For Today's Dilemmas, pp. 381-389.

[487] Mark Washofsky, Classroom Lecture, Hebrew Union College-Jewish Institute of Religion, Spring 1997/5757.

In בָּבָא מְצִיעָא, 62a two men are stranded in the desert with only one water bottle. The rabbis teach that the correct action is for the one with the water to keep it, and not share it. It is clear that to keep the bottle and not share the water is to let the other die. Better one should live than both men die. The principle at work here is שֵׁב וְאַל תַּעֲשֶׂה, sit and do nothing. We can not choose who will live and who will die. We must leave that in the hands of God. We learn in the עָרוּךְ הַשֻּׁלְחָן, that in a time of crisis we should not stop to weigh the risk and do the math, but rather try to save the life in danger with some integrity, heroism, and effort. There is a delicate balance between לֹא תַעֲמֹד עַל דַּם רֵעֶךָ and וָחַי בָּהֶם.

בְּרָכוֹת, 33a teaches us that all oxen are potentially dangerous. We are taught to rely on case history to determine the degree of danger present with a particular animal, and how we are to act in the particular situation. Probability and statistics play a significant role in the decisions we make, even within the confines of the halachic legal system.

While not part of specific Reform responsa, Washofsky's insights bring a Reform perspective to these Rabbinic texts. These texts along with the responsa indicate how the Movement views the issue of living donors of organs and tissue. There is certainly a priority placed on the life of any individual. At the same time there is also a very high value placed on any act which saves a life. In any instance where one does not needlessly place one's life at risk or sacrifice one life for another, a voluntary life-saving act is an act of heroism. Any act which is life-saving and risk-free should be considered by Reform Jews to be a moral imperative, and part of the commitment to social justice and loving one another. Unlike the Orthodox rulings, the Reform rulings allow more freedom to the individual to decide the acceptable degree of risk and the risk to benefit ratio that compels one to perform this life-saving act.[488]

---

[488] For additional medical and bioethical material from a Jewish perspective, contact Jewish Bioethics Centers, see Appendix D; For the most current information and fast access search Jewish Bioethcs websites, see Appendix E.

Chapter 7.

Synthesis & Conclusions

The fact is that there are thousands of people who are dying because there are not enough organs available for transplantation. These are people who could live if provided with an organ, but because so many neglect to share their desires and feelings in life, families are reluctant to permit the donation. In the laboratories around the world there are projects underway which may someday eradicate the need for donor organs and tissue. Tests are being conducted on artificial blood, mechanical organs, and synthetic skin. Transplants from animals into human beings are being explored, and genetic engineers are altering the make up of animals to make them more compatible with the human systems into which tissue and organs are being transplanted.

With the new field of cloning upon us and the introduction of that whole field, the new possibilities are almost endless. Someday it may be possible to clone an organ from a cell taken from a healthy "like-organ" encoded with the DNA from the recipient. This would allow for a perfect match every time. When this day comes, the shortage of blood, tissue and organs will never again be a crisis and will never again cost another life. However, there is no telling how far off that day is. The concept is very real, but the technological know-how is unavailable.

In the meantime we are faced with a crisis. Thousands of people are waiting for organs, many of whom will die before they receive an organ. Somehow, we must figure out a way to stretch the supply to meet the demand or to increase the supply. It is possible to share some organs, like the liver, among more than one patient, thereby allowing the same number of organs to help a greater number of patients. Pre-operative transfusions have been shown to increase the odds of graft success in some transplant procedures. We hope, too, that newer and better immuno-suppresion drugs will virtually eliminate the occurrence of rejection and graft failure.

Possibly the greatest single source of viable organs available today is from living donors. The numbers are great, the supply is virtually endless, and the viability of the tissue and organs in a living person is nearly perfect. The question, however, is whether this is an ethically acceptable supply source, and whether or not this is an acceptable source according to Judaism.[489]

To begin with one must take a broad overview of the field of transplantation,[490] and focus on the statistics of the specific organ or procedure in question.[491] The shortage must be analyzed and the sources from which organs and tissue are obtained for transplants assessed.[492]

1) Express donation by the individual donor is the first source. This is the method used in Australia, Canada, Denmark, the Netherlands, Japan, Sweden, Turkey, the United Kingdom, most of South and Central America, and the United States, by virtue of the Uniform Anatomical Gift Act, which gives the (competent) individual the right to determine the fate of all organs and tissue within the body after death, and allows the next-of-kin to decide if the individual failed to do so while alive.

2) In some countries presumed consent for donation is assumed of the individual or next of kin, until or unless the contrary is made clear to the doctor or hospital by the patient or the next-of-kin.

---

[489] For an overview of religious beliefs and teachings on organ donation, see Appendix B.

[490] "Organ And Tissue Procurement," Encyclopedia Of Bioethics, Revised Edition, Warren Thomas Reich, Editor-In-Chief, New York: Simon & Schuster and Prentice Hall International, 1995, pp. 1852-1894.

[491] For more information on the supply of organs and tissue, procurement systems and donation rules, see Encyclopedia Of Bioethics, "I. Medical And Organizational Aspects," by Jeffrey Prottas, pp. 1852-1857.

[492] Encyclopedia Of Bioethics, "II. Ethical And Legal Issues Regarding Cadavers," by James F. Childress, pp. 1857-1865.

3) The routine removal or salvage, as is the common practice with corneas in some states in the United States, is used in Austria, Belgium, Finland, France, Norway, Portugal and Singapore. The burden is upon the individual or family to prevent donation if it is not desired. In all other cases, there is assumed consent if there is not an explicit objection or request made to the contrary.

4) Expropriation or conscription, which involves legal intervention in the interest of society allows doctors to harvest organs or tissue without the consent of the decedent or family. This is not a feasible system at the present time, but it is certainly desirable according to some.

5) Abandonment is another source of tissue and organs. There are often body parts removed in surgery or left over after treatment, and unidentified bodies with no other usefulness to us.

6) The sale of organs. The 1984 National Organ Transplant Act made it "unlawful for any person to knowingly acquire, receive or otherwise transfer any human organ for valuable consideration for use in human transplantation if the transplant affects interstate commerce." The term "human organ" is defined as human kidney, liver, heart, lung, pancreas, bone marrow, cornea, eye, bone and skin, and any other human organ specified by the Secretary of Health and Human Services by regulation. It is not illegal to sell blood, sperm and ova. No country is known to allow the sale of cadaveric organs, although, there are rumors.

Those in favor of allowing the sale of organs argue that it is a matter of autonomy and utility, the maximization of human welfare.

Those opposed to organs sales argue that,

1)There are serious risks to vendors and to donors.

2) Exploitation and economic pressures can play a significant role.

3) Allowing human body parts to become commodities, some argue, degrades all human beings and our society.

Ethical considerations for cases involving living human donors[493] include:

1) Risks and benefits to the donor must be weighed. A living person may donate sperm, ova, blood and blood products, bone marrow, kidneys, portions of the lungs, and liver, and pancreas.

In some cases the body naturally replaces donated material, as is the case with bone marrow, blood products, ova and sperm. The liver is not a replaceable organ, however, it can regenerate over time. Donating a kidney, part of a pancreas or lung, the body does not replace it, although, the body will adapt to its new situation. The body's previous level of function will not return.

The invasiveness, discomfort and risk involved in the harvesting procedures used to obtain tissue or organs are significant.

Sperm harvesting is considered noninvasive, and virtually painless.

Donating blood is only slightly painful, and considered risk-free.

The bone marrow and ova donating procedures are slightly more complex, and painful. The procedure requires anesthesia, which adds an element of risk to the procedure. Ova donation also usually also requires superovulatory drug therapy before harvesting.

Donation of a kidney, liver segments, lobes of lung, sections of pancreas require major surgery, under general anesthesia. Even with this added complication, the risk is still considered small in experienced transplant centers. A 1992 survey of United States kidney transplant centers revealed five deaths in 19,368 live-donor transplants.

2) The risks and benefits to the recipient are also significant. For example, liver transplants from cadaveric or living donors have a high rate of success; but as many as one in four patients waiting for an organ to undergo transplantation will die before they can be transplanted. Living donors are one possible solution to preventing these deaths.

---

[493] Encyclopedia Of Bioethics, "III. Ethical And Legal Issues Regarding Living Donors," by Peter A. Ubel and Mary B. Mahowald, pp. 1865-1871.

Kidney failure and disease, on the other hand, is generally not life threatening, and can be controlled with dialysis therapy. Transplantation in such cases is for improved quality of life, and significant financial savings over long term dialysis treatment. Donors undergo significant risks; there can be tremendous pressure leveled to convince someone to donate, and the overall success of cadaveric kidney transplants all lead some of the top physicians in the field to believe living donors should not be encouraged.[494]

Bone marrow donation is far more compelling for a salvageable case than for either a hopeless, lost cause, or a last ditch effort.

3) There is a question about the possibility and validity of consent for donation. Most courts in the United States have consistently allowed individuals not capable of informed consent, like children and incompetent adults, to donate tissue and organs only when the donor and the recipient are likely to benefit from the donation. Typically, this is a relative who is important to the continued support and care for the donor. Adults are assumed competent until they prove otherwise, while minors are assumed incompetent until they prove otherwise.

In one case, a woman serves as a donor by gestating another infant in an effort to produce a donor for an older sibling. The benefit of existence is sufficient to justify the burden put on the newborn.

Some argue that free choice should be the requirement not informed consent. Parents and relatives often are not interested in the details and are immediately sure of their decision. They see no need for another opinion, time to think about it, an understanding of the procedure or the risks involved.

---

[494] Thomas E. Starzl, "Will Live Organ Donations No Longer Be Justified? Technology Alters An Ethical Debate," Hastings Center Report, Volume 15, Number 2 (April 1985), p. 5.

On the other hand, a teenager expresses a wish to increase use of the family car or greater acceptance within the family system in return for donating. As a child approaches adulthood, that young person's opinions must get increased weight in making decisions. There is no justification for forcing an adolescent to donate (or accept) tissue or an organ.

4) The protection and assurance of donor privacy and confidentiality is critical. It is common for one person or another within a family to feel pressure to donate or not to donate.

There are always special circumstances and exceptions to every set of rules. In the case of living human donors these exceptions include pregnant women and the fetuses they carry, anencephalic infants, lacking most of the brain and destined to die within days of birth and institutionalized individuals, like the prison population.

There are some who take issue with the disproportionate number of women who become living-donors, suggesting that it is the result of discrimination. There are at least two factors which contribute to this disproportion: (1) The woman is more often the primary care giver, and donation may be seen as an extension of that role, and (2) the woman may have the smaller income of the two parents making it a more economical decision for the family for the woman to serve as a living-donor rather than the man.

The vast majority of donors of solid organs and bone marrow are relatives. Sperm and blood, on the other hand, are usually anonymous, and presumably unrelated. The greater the risk involved in donating, the more difficult it becomes to find a donor who benefits proportionately to justify living-donation. The ratio of risk to benefit improves, however, with related donors, since a relative is more likely to benefit psychologically from the life-saving donation to a relative, or loved one, rather than a total stranger.

Special obligations are assumed for relatives and loved ones. Donation to a parent might be morally obligatory, while donation to a stranger might be altruistic and virtuous. One might extend this responsibility to parents to include close relationships such as friends. In 1983, a court decision ruled that one is not obligated to donate bone marrow to a stranger.[495] This ruling is consistent with the phenomenon that some people feel compelled to donate to a relative or loved one, but refuse to donate to a stranger.

Procedurally, the evaluation is done by a transplant team, with recourse to an ethics consultation, institutional review boards or ethics committees, when necessary or helpful. Evaluation of the donor should be done by an advocate for the donor, who is not a member of the transplant team. The use of a physician who is not involved in the care of the recipient assures the potential donor that the evaluation is being done with the donor's best interest in mind and that the recommendation will not be influenced by the physician's dual loyalty to the recipient's welfare as well as the donor's.

It is helpful to understand in some broad terms a medical overview of organ and tissue transplants, [496] including an overview of the development of the procedures and drugs used, the use of cadaveric and living-donors, Consent, retrieval, preservation of organs and tissue, distribution, rejection and immunosuppression, success of transplantation, costs and reimbursement, and the lack of cadaver donors and alternative sources.

---

[495] Head vs. Colloton, 1983. 331 N.W. 2d 870 (Iowa).

[496] Encyclopedia Of Bioethics, "I. Medical Overview," by Calvin R. Stiller, pp. 1871-1882.

There is a great deal of concern with the strong pressure involved in donation decisions.[497] Symbolic meaning virtually obligates every family member to at least consider donation. Likewise, with the obligation to receive organs, in rejection of this offer there is an implied rejection of the donor and the relationship between the individual and the donor. Among the reasons recipients refuse to accept donations from living related-donors are

1) A desire to spare the donor the discomfort, danger and sacrifice involved in the donation, harvesting procedure.

2) A fear of complicating the relationship between the donor and the recipient.

3) A fear of not being able to repay the gift.

4) And apprehension about having another person's body part inside the recipient's body.

Some may find it helpful to have a well-rounded understanding of the history of transplantation in the 1950-1960's, from experimentation to therapy in the 1970-1980's, cadaveric donation, scarcity, and the ongoing challenges.[498]

With the medical aspects of the procedures understood and the risks and benefits measured and evaluated in the situation, the next step is to look at the traditional Jewish sources, and the halachic literature, in order to figure out what issues are at work. It is often helpful to look up related questions to see what applications might cross over and be useful in this new situation.

---

[497] Encyclopedia Of Bioethics, "II. Sociocultural Aspects," by Renee C. Fox and Judith P. Swazey, pp. 1882-1887.

[498] Encyclopedia Of Bioethics, "III. Ethical And Legal Issues," by Arthur L. Caplan, pp. 1888-1894.

In the case of tissue and organ donation from a living donor, it is useful to start off with a look at the sources for cadaveric donation, and then to add to that material. Additions may include the concept of acceptable levels of risk, and the obligation to redeem captives. There is also the application of the Heinz Dilemma, what to do when supply is smaller than demand, and the choices are to live at the expense of another's life, to die in order to save another, or to split the supply and risk both dying. With all of these areas to cover and to apply, there should be plenty of source material to work with and to use to shape a new ruling.

As for the question of tissue and organs from living donors, Lord Immanuel Jakobovits, former Chief Rabbi of the British Commonwealth, deems that a donor may endanger his or her life or health to supply a "spare" organ to a recipient whose life would thereby be saved, as long as the probability of saving the recipient's life is substantially greater than the risk to the donor's life or health. Such donations are seen as supreme acts of charity but not as an obligation.[499]

This is the generally accepted position shared by Moshe Feinstein,[500] Eliezer Yehudah Waldenberg[501] and Ovadia Yosef[502] of the Orthodox communities, Elliot Dorff[503] of the Conservative Movement, and Solomon Freehof[504] and Walter Jacob[505] of the Reform Movement.

---

[499] Emmanuel Jakobovits, Jewish Medical Ethics, p. 291.

[500] Moshe Feinstein, שו"ת אגרות משה יורה דעה, Numbers 229, 230.

[501] Eliezer Yehudah Waldenberg, שו"ת ציץ אליעזר, 9:45, 10:25.

[502] Ovadia Yosef, דיני ישראל, Volume 7.

[503] Elliot Dorff, Choose Life: A Jewish Perspective On Medical Ethics, p. 23.

[504] Solomon Freehof, New Reform Responsa, 1981 pp. 62 ff., idem, Current Reform Responsa, 1969, pp. 118-125.

[505] Walter Jacob, Contemporary American Reform Responsa, 1983, pp. 128-133.

The situation is even more clear with regard to blood and bone marrow donation. These procedures are now safe and effective to the point that the risk is virtually negligible and the benefit to the recipient is immeasurable. As a result of this progress, and the risk to benefit ratio, Dorff believes that Jewish organizations should see it as an imperative to hold blood drives for their members to donate blood. Dorff categorizes blood donation as an act of חסד, a moral duty, and as a Jewish legal imperative.[506] Rosner and Tendler agree that blood donation involves minimal danger to donor, and is potentially life saving. There is reasonable certainty of the blood being used, which allows donation without a known recipient.[507]

Along with the donation of blood for transfusion Dorff also calls for all Jews to submit to the blood test which will put them in the national computer bank for bone marrow type matching. If a match is found there is a good chance that the donation of marrow will save another person's life.[508]

---

[506] Elliot N. Dorff, "Jewish Perspective On Organ And Tissue Transplantation," Coalition for the Advancement of Jewish Education (CAJE), November 21, 1996, Idem, "Organ And Tissue Transplantation From A Jewish Perspective," (©, 1995), A Time To Be Born, Philadelphia: Jewish Publication Society, Expected date of publication – August 1998.

[507] Rosner, Tendler, Practical Medical Halacha, Jerusalem: Feldheim, 1978, pp. 73-74.

[508] The odds of finding a match for a person in need are so slight that it is safe enough to be considered almost risk free, and should, therefore, be an obligation to register; Donation is not risk free, but is safe enough to be strongly encouraged and supported.

Dorff stresses that organ and tissue donation is critical for saving lives. It is only because of a lack of cadaveric organs and tissue that healthy people are compelled to undergo such risks to their health and lives in order to save others' lives. If all Jews fulfill the obligation to become cadaveric organ and tissue donors, and to donate the organs and tissue from loved ones who die, we could not only save lives but we could also prevent the need for friends and family to submit to the risks involved in living donation of organs and tissue.

Cadaveric organ and tissue donation, which does not pose a risk to any living person, should not be a question requiring thought. Jews must do anything and everything possible to safely save the lives of others. Donating blood and getting tested for the national bone marrow registry is a moral duty and a legal imperative.

For those who wish to offer their organs or tissue to save another, and whose physicians see the risk-to-benefit ratio as being well within ethical safety boundaries, to you we say כָּל הַכָּבוֹד לְךָ and יְשַׁר כֹּחַ; truly this is an honorable act to undertake and may your strength be bolstered and increased for it.

Based on the concept פִּיקּוּחַ נֶפֶשׁ one must go to great lengths to save a life. While it is forbidden to trade one life for another, this must include some level of risk. We must at all times be wary of "clear and present danger." וַדַּאי סַכָּנָה , but at the same time, we must not allow ourselves to use the excuse we would help if there were no danger, בְּלֹא סַכָּנָה. As is pointed out above, situations with no risk are rare enough that most people would never intervene nor save another life.

The principle of בְּלֹא סַכָּנָה could potentially eliminate the obligation of פִּיקּוּחַ נֶפֶשׁ. We must be able to pursue our socially conscientious desires to help others without losing sight of the goal, וָחַי בָּהֶם, that we are to live by the laws of Torah and not to die by them.

We may not expose ourselves to excessive danger in order to pursue a מִצְוָה. Somewhere there is a middle ground which allows us to take a chance, but where the odds are in our favor. Somewhere in the middle is what the halachah calls סְפֵק סַכָּנָה, the point where the Rabbis say, "this far, but no further."

In our struggle to reconcile our actions with our feelings as modern liberal Jews and as human beings we face risks and choices on a daily basis. I do not agree that one who allows "the possibility of danger to his life," סְפֵק סַכָּנַת-נְפָשׁוֹת, is a "pious fool," חָסִיד שׁוֹטֶה. There is no more appropriate time than in a life threatening situation to take risks and rely on one's faith in the face of danger.

It is no longer within one's right to choose danger when the risk exceeds a fifty percent chance that a person may die, סְפֵק שָׁקוּל . But, it is within our right, perhaps even an inner obligation that might be felt in the case of a parent, sibling or child, to face some degree of risk and danger, and to undergo some amount of pain and suffering, in order to save one's parent, child or loved one from וַדַּאי מֵת, certain death.

In the case of Stan,[509] who becomes a living kidney donor for his brother, the halachah supports the decision to volunteer in order to save his brother's life. Stan is a healthy adult with two normally functioning kidneys, while his brother is ailing in a life-threatening condition. Stan's brother has reached a point where dialysis is no longer sufficient to maintain his health, and the agony of the extended therapy is destroying his will to live. In this case, undo hardship and burden and quality of life are contributing factors, but not the determinant. The psychological affects of prolonged treatment and the progressive nature of the multiple ailments were reaching a critical point, beyond which doctors surmise Stan's brother could not live for a significant length of time.

---

[509] See Chapter 1, Case 2.

Stan is a blood type match to his brother and in fine condition to become a living-donor. The risk to Stan is minimal,[510] and the benefit to his brother is life. Stan will benefit from the psychological impact of being a living-hero; without this organ transplant Stan's brother faces the status of וַדַּאי מֵת, certain death.

Stan possesses the power, and in the spring of 1996, he volunteers to save his brother's life. His act of פִּיקוּחַ נֶפֶשׁ is without a doubt a מִצְוָה; for volunteering, and saving his brother's life, Stan is a true חָסִיד, to whom all Jews say כָּל הַכָּבוֹד לְךָ and יישר כּוֹחֲךָ.

As for Scott,[511] the Cystic Fibrosis patient in his early twenties, the halachah is fairly clear. If he and his father can not agree on the course of action, the decision is Scott's. Scott has been a competent adult for many years now and he has a full understanding of the risks and consequences of all of his decisions. If Scott is unwilling to undergo the procedure, than it is not acceptable according to the Jewish tradition to deceive him, coerce him or force him.[512] The law is very clear that any operation Scott can undergo in order to achieve long term health should be done as long as the odds suggest a reasonable assurance of success. Some might say Scott is obligated to attempt treatment if the odds of success are better than fifty-fifty for a three year survival. With anticipated success and the potential for long term survival the procedure is "strongly encouraged."

If no matching organ can be found from the available cadaver donations, and if Scott's doctor decides that the surgery is necessary for Scott to live, the situation changes. At this point Scott's doctor has the right according to the Jewish legal tradition to make all decisions necessary to save Scott's life.[513]

---

[510] See Chapter 5, Section I. (In the case of a kidney donor, the risk of death is between one and two percent.)

[511] See Chapter 1, Case 1.

[512] See Chapter 5, Section II. (Patient consent is required for high risk treatment, doubtful or experimental cures.)

[513] See Chapter 5, Section II.

Unlike the situation of an ailing elderly patient who rejects medical advice which will prolong pain and suffering, the case of a young person who potentially has many years ahead of him is another story, altogether. With an elderly patient one could argue that he has lived out his years, and it is questionable whether the person has the strength to survive the procedure. With a young recipient there is always hope that the strength of youth will be enough extra encouragement to help the patient survive.

Unfortunately, this was not to be the case with Scott. When the decision was made that he was not willing to allow either of his parents to risk their lives for his sake, it was with a fully informed understanding of just what each of his options were, and what each of his choices would mean. Scott watched friends and acquaintances around the country undergo various types of surgery and procedures to prolong their lives. He knew that the treatment would cause more pain and suffering; Scott had no option which offered a realistic chance of a long term cure or solution.

In early January 1997, Scott underwent a double-lung transplant, with lungs from a cadaveric donor. The transplant operation was a success, and Scott was released from the hospital in mid-March, after many long painful weeks in the Intensive Care Unit on a respirator. The transplant was apparently grafting, but as is often the case with transplant patients, the immunosuppressive therapy depressed Scott's resistance, and he contracted pneumonia. He fought for over five months; Scott suffered, endured and struggled as long and as best he could. My friend Scott died on May 17, 1997, at the age of 23.

As I complete my thesis in Cincinnati and Scott's family and friends unveil his grave marker, I think that, in retrospect, Scott knew what he needed and what his choices were. He knew that the risks to his parents, if they were to serve as living donors were significant, and that, as Scott had seen with his peers, his chances for long term survival were overwhelmingly poor. With all the good intentions of Scott's parents and their thoughts for his well-being and survival, they proposed to submit to ספק סכנת-נפשות, significant risk for ספק פיקוח נפש, a small chance of survival. Scott also was aware that succesful surgery could mean חיי שעה, a short-term extention of his life; while any complication for his father or mother, the donors, could cost them חיי עולם, the rest of their lives. While any parent might instinctively do the same thing for a child, one who volunteers to become a living donor, with this high degree of risk, and small chance of success, falls into the category of חסיד שוטה, a "pious fool."

While not obligated, a parent, sibling or child is certainly permitted and encouraged to expose himself or herself to "merely possible danger," ספק נפש שלו. This is the case when the doctor deems the procedure "low risk." It is relevant that the donor be able to continue to live out his or her normal life expectancy after recovering from surgery.

When in a situation about which we cannot be objective, we rely on the expertise of professionals, consult the best physicians in the field, and consult a trusted rabbi, who may in turn choose to consult a rabbinic expert in the field, for example Tendler, Waldenberg, Jakobovits, Dorff, or Washofsky, to name a few.

Judaism has always put the highest value on פיקוח נפש. Anyone who volunteers to save a life is performing a מצוה; since becoming a living donor is voluntary, the involved person a חסיד. Those who choose to take on ספק סכנה, the risk of possible danger or even ספק סכנת-נפשות, the possibility of mortal danger, should be applauded. According to our tradition as Reform Jews, it is our moral obligation to undertake opportunities even for ספק פיקוח נפש, merely the possibility of saving a life; we are to subject ourselves to some degree of risk when necessary in order to be examples of ethical Judaism.

We must always be mindful of our own safety and well-being, as it is our obligation to follow Torah and מצוות, וחי בהם, in order to live by them, not to die by them. That is not to say our lives should be בלא סכנה, risk free. We are not allowed to take on risk without just cause, and even then we must use our judgment in establishing limits; however, when there is a cause worth fighting for, there is sufficient justification for taking on ספק סכנה, some possible risk. One who is overly zealous may become a חסיד שוטה, a "pious fool," which is not encouraged, but at the same time is certainly not a shameful thing to be.

Volunteering to donate organs or tissue as a living donor is, according to most authorities, an act of חסד; taking on minor risk to save a life is for liberal Jews a moral obligation, and participating in blood drives and joining the bone marrow registry is nothing less than a Jewish legal imperative for Reform and Conservative Jews.

We read in פרקי אבות,[514] "לא עליך המלאכה לגמור ולא אתה בן-חורין להבטל ממנה, "It is not your duty to complete the work, but neither are you free to desist from it." Each one of us has a part to play and a role to fill. If you are already an active volunteer, הכבוד לך כל and יישר כח, and if you are not yet a part of the effort, ואם לא עכשיו אימתי, "If not now, when?"[515]

---

[514] פרקי אבות, 2:21.

[515] פרקי אבות, 1:14.

Appendix A

Living Donor Stories

1. "The Right Thing To Do"

(Bone Marrow Donation)

by Lisa Wedemeyer

I lost a friend recently. Her name was Mary. I never met her. I spoke to her once and we corresponded about a half dozen times or so over the past year. That's it. In fact, on so many levels, I did not know Mary at all, and yet we were connected in a way that few people are. She was my recipient. I was her donor. Our connection was bone marrow.

When I donated a blood sample and officially joined the National Bone Marrow Registry, it just seemed like the thing to do. I saw a flier on a streetside fruit stand. I did not know the person for whom the drive was being sponsored. I just went and gave a little blood. Painless. The workers told me that the chances were very slim that I would ever get called. But I did. I went to give more blood for further antigen matching, and they told me again that chances are I would not get called again. It took longer this time, but I did. More tests, more matching. And then nothing for a while. Until the call that told me that the "miracle match" had happened, was I still willing to donate?

Wow. All this time I never really thought it would happen, truthfully, I did not give it much thought at all. Now I had a decision to make. Though it really wasn't much of a decision. I knew in my heart what I would do all along. The blood center people gave me lots of information, lots of physical tests to make sure that I was healthy. My husband was worried more than I (he is in the medical field, and knew more about every little thing that could go wrong, no matter how remote). When all was said and done, I got the papers, the Consent to Donate, and I signed. Because the bottom line was, how could I not?

Shortly afterward, I spent a couple days in the hospital to donate the marrow. It wasn't the easiest thing I have ever done. There were some unexpected complications caused by anesthesia, but I got through them. I experienced some discomfort. People had told me ahead of time that itwould feel like I had taken a hard fall on the ice, landing on my butt - that was pretty accurate! But, you know, I gave birth to two children and in

comparison the bone marrow retrieval was a breeze, complications and all. Within two weeks I felt 80% fine, with in a month it was like nothing had happened.

Physically, that is really the end of the story on my part. But I knew that somewhere there was a woman who was just starting her battle. When you donate marrow to an unrelated recipient, they really stress confidentiality of both the donor and the recipient. I knew my recipient was a female, I knew her physical problem, and I knew her age. That was it. No name, no location, nothing else. I wrote a short unaddressed note that accompanied my marrow. A few weeks later, I received a note back. Actually it was a copy. Letters between donors and recipients are screened and they "white out" any personal references and then make a copy to pass on. But I tell you, it was one of the most wonderful things I had ever read. It made the connection between us seem more real, more personal.

In subsequent months we wrote to each other a number of times. We even came up with code names for each other since we did not like the impersonal greeting of "Dear Donor" or "Dear Recipient". I was Cleopatra (Cleo for short), and she was Joan (for Joan of Arc). In each letter we learned more about each other. It is amazing how much you can tell about yourself without giving any specific locations or names. Towards the end of the year, we were each trying to sneak in hints about where we lived. She mentioned something about apple picking and fresh maple sugar (I was sure she was in Vermont) and I wrote about going to see a well known Broadway musical hoping she would guess I was in the New York area. We finally got caught by our respective contacts and had to keep our last letters more straight forward. I happily anticipated each letter "Joan" sent, it was fun to hear from her, plus her letters gave me some hope that the marrow transplant was working.

Exactly one year after the transplant, I got a call from the contact at my blood center. She had "Joan's" real name and address. Her name was Mary, a simple, wonderful name. She lived in New York State. So much for my Vermont guess, at least I was close! I knew that Mary was not home, she was at the hospital where the transplant had occurred for her one year check up. Later on in the evening, my husband answered the phone. He turned to me with a smile and said "It's Joan of Arc. For you."

We were finally voice to voice. We spoke for twenty minutes - it was wonderful! We filled in a lot of names and places to each other. We joked about appearing on television together - she wanted to do "Geraldo", I said it was "Rosie" or nothing! We decided we would make plans to meet when she returned from the hospital. She had a slight lung infection but was hoping to leave soon. When I got off the phone, I thought of a million other things to ask, but I knew we would meet each other shortly. I sent off a Valentine's card with a picture of my children. It was a pleasure to write "Dear Mary".

Exactly one week from when we spoke, I got another phone call. This time it was my contact. I knew right away something was wrong. Mary had died. But how could this be, we had spoken, we were going to get together. I didn't thing it was going to necessarily be a fairy tale ending, but not this! Not so soon. I cried and cried. For Mary, for myself, for her poor family who I didn't even know, but who had been through so much.

A few days later, my contact called back to see how I was doing. She told me I had given Mary a year she would not have had. She told me that Mary's family at least had the comfort of knowing everything had been done, no stone left unturned, no "what if we had found a marrow match". I know all this, and I have no regrets. I was blessed with the opportunity to try to make a saving difference in someone's life. Most people are not given that chance. I feel fortunate. I wish that Mary and I could have become old friends, celebrating life. Instead, I lost a new friend, one that I will never forget.

This account appears on TransWeb by permission of the author.
It appeared in Newsweek magazine (April 28, 1997), in the "My Turn" column under the heading "The Right Thing To Do."

2. "I Love Her With All Our Kidney"

(Living Kidney Donation By A Sister)
My Experience As A Living Kidney Donor
by Kelley Horrigan

At the age of 36, I became a kidney donor for my sister, Lori. This was, by far, the most gratifying experience of my life and chronologically, I would like to relate to you the process of donating that kidney. Many of you may have questions concerning the living-related donation process and I hope to answer, at least some, of those questions.

When I first realized I wanted to become a donor, I searched the library and then the internet for information on what to expect. I think what I was really looking for, was someone to tell me that it really doesn't hurt and the experience would be well worth it. Well, it did hurt, but not as much as I'd expected and the experience was well worth it!

First, a bit of background. Being born and raised in a military family, one can't help but to establish some sort of lasting relationship with siblings. While moving all around the world, there are times when your brothers and sisters are your only friends. My relationship with my sister Lori blossomed when our family was transferred to Izmir, Turkey, in 1976. I was the proverbial "big sister" to her. She would always come to me with all kinds of questions, mostly about boys and growing up. I liked being the older sister and felt it was my duty to help her out. I have always been fiercely protective of her. I was almost shocked when she got married ten years ago. I couldn't believe it, my "little sister," all grown up! Though our lives took different paths, we always managed to keep in touch.

Today, Lori is 33 years old. She has been living with kidney disease since she was eight years old. She had been diagnosed with glomerulonephritis before we left the United States for Turkey, but it had not been a major problem. No one is sure where her original disease originated, it could have been any number of causes. No matter, kidney disease has been her life long misfortune. She had her first kidney transplant in 1985 via cadaver donor. It worked very well for almost 11 years. During the spring of 1996, there were indications that this kidney was failing and another transplant was only a matter of time. Her doctor said she could probably go for another year or so without one, but her quality of life would sink considerably.

Lori came to Nebraska from her home in Maryland to visit with the rest of our family in July of 1996. During her visit, my parents and I accompanied her to a consultation with a transplant surgeon from the University of Nebraska Medical Center in Omaha. The three of us had made the decision to become a donor for her next transplant. We talked extensively with the surgeon and his transplant coordinator who answered all the questions we could think of at the moment. The next step was blood tests for each of us to see who would potentially be the best match.

When word came about a week and a half later that I would be the best candidate to proceed with testing for possible donation, I was very emotional. I had a feeling it would be me, I was praying it would be me, but to have it spoken out loud that it actually was me, was incredible. I feltexcitement, dread and elation all at the same time. My dad actually had a better antigen match (he was 5 of 6, I was 2 of 6), but because of our ages, the surgeon thought I'd be the better candidate in terms of recovery, etc. I called Lori and told her, "It seems I have this kidney sitting around with nothing better to do and wondered if you wanted it?" So, with the decision made, more blood work and two major procedures were required. Any abnormality could knock me out as the candidate at any point during the testing. I prayed hard there would be no problems.

The first test was an Intravenous Pyelogram (IVP). An IVP is used to actually highlight the kidneys, to make sure you do have two kidneys (the coordinator told me I'd be surprised at what is found in some potential donors) and that there is no growth or abnormalities on either kidney. It required me to adhere to a very strict diet for 24 hours before the test and drink some horrible concoction that would relieve me of anything internally that would be viewed as an "obstruction" during the IVP. I also had to do a 24-hour urine collection, to be brought in the day of the IVP. The test was done on August

9th. The IVP procedure was no big deal. A nurse injected dye into my veins. A big X-ray machine then took pictures every few minutes for about an hour, up and down the length of my body, to monitor the progression of the dye through my veins down to the kidneys and into the bladder. During this procedure, the X-ray technician, who was fairly young, asked me if I'd been having kidney problems. I proudly said, "No, I'm donating a kidney to my sister." The look of awe on his face made me feel warm all over! This was the start of reality really setting in.

The last big hurdle was the renal arteriogram, also called an angiogram. This was done a week after the IVP. The preparation for this test was considerably less than for the IVP. No strict diet, just nothing to eat or drink after midnight. The morning of the test I had to be at the hospital early. They admitted me even though this procedure was considered outpatient surgery. I was told this was standard procedure and I would be able to go home about six hours after the test was completed. They shaved both sides of my groin (they said, "Just in case it didn't work on one side"). I was given a local anesthetic in the groin and they were ready. The doctor came in, threaded a catheter up my femoral artery to my kidneys, and injected some dye. I immediately felt a lot of very warm liquid fill my belly area. I wasn't the least bit uncomfortable, but I'd been told what to expect before the procedure began. They again took X-rays, this time to chart the flow of dye through the veins and arteries to make sure everything worked properly. Before I knew it, we were done. This test would help the surgeon determine which kidney would be the best one to remove, after analyzing the position of the renal veins and arteries. After the catheter was removed, a nurse put a big clamp over the incision area (very small, no stitches required) and the bottom of the table. Pressure was applied for about 15 or 20 minutes, then I was wheeled back to my room. Once there, I had to lay still for about five hours with a small sandbag (yes, a sandbag!) over the incision area, maintaining the pressure so it wouldn't bleed. I could go home once it was determined I wasn't going to hemorrhage.

I passed all the tests with flying colors and asked the transplant coordinator how soon they could schedule the transplant. She checked her books and asked, "How does September 9th sound?" Oh boy, this was already the 16th of August, that date was just around the corner! I was really going to do it. It's very hard to describe all the thoughts and emotions I went through; however, I never had a second thought about donating. I was very worried about how much it was going to hurt but felt it was the least I could do to help out a sister I had come to love so much.

The big day arrived. We checked into the hospital at six o'clock in the morning with my surgery scheduled to begin at noon. We had to give yet more blood (they really do take a lot of it during the course of testing), and then it was off to our room. We were excited about being in the same room, as we'd been told they don't usually put the donor and recipient together in one room. We were told the recipient usually recovers faster than the donor and they didn't want any resentment building; plus, the first day or two Lori would be in intensive care as a precautionary measure. Therefore, this roommate situation would only last until I was taken to surgery. We had EKGs done about nine o'clock, then the two surgical residents that would be assisting the surgeon visited us to explain the procedures they would be using and also told me for the first time, which kidney they were going to take (my left). We spent the remainder of the morning taking pictures, talking to family, reading the newspaper and just being goofy. I think we were both excited but scared, too, and lost in our own thoughts. I got a real feeling of "Oh my gosh, here it is, what am I doing?!" but I knew I would never back down. This was something I really wanted to do for Lori.

At noon, it was time to go down to the operating room. After tearful good-byes, I went down to preop where an epidural catheter was inserted into my spine. Half my back was taped up to keep the catheter in place. I chose this method of pain control after reading Steve Blakeman's article. I also discussed it with the transplant coordinator, asking her what method of pain control other donors had chosen and why. I was given something to

calm my nerves, and shortly after that, I was off to surgery. I do not even remember going into surgery, that must have been some strong calming medicine. My next recollection was late in the afternoon, back in my room. I remember two people trying to move me into bed, they told me to relax, they would get me in. I think I made some sort of effort to help, but........ My next recollection was of my brother and his wife standing at the foot of the bed. I tried to crack a joke, but, while I thought it was funny, I don't think he "got it." I was too tired to explain. I don't recall any pain at this point. The next time I recall waking up was about four in the morning. I was dying of thirst! The nurse said I couldn't have anything to drink yet, but she brought me a cool washcloth. I slowly wiped that over my very dry lips and squeezed what I could into my very dry mouth. That scenario went on throughout the rest of the night.

On day two, the surgeon and his residents visited in the morning to check on me and the incision. As I understood it, my left kidney had been located just a bit higher than normal. As a result, I was only cut in the front, not from front to back as is typically done. Staples closed the incision, and when I asked the resident how many staples were there, he looked hard and said "Well, let me just say, not one more than was needed!" Later count revealed 26 staples. They took the dressing off permanently and said the incision would heal faster without it. I was cleared to eat a liquid diet and the oxygen tube I had been wearing since the surgery was removed. Later that morning, I attempted my first of many walks around the ward. I have to say, this was actually the worst day of all. I don't know what they did to my insides, but I had the worst gas-like pains I can ever recall having, and there was really nothing I could do to make it feel better. My mother and a friend alternated rubbing my back to try to relieve some of the pressure. Thankfully the pains subsided later in the afternoon, but at the time they were happening, I felt it would be better to just go ahead and die right then. On the brighter side, though, the trips around the ward were made, albeit very carefully. I pushed the pain pump every 20 minutes and that made the trips bearable. I held a pillow over the incision area and held on to the rolling IV pole for support. I napped on and off during the day. Because of some complications my roommate was having, I was moved into a new room in the afternoon. My new roommate was a scream. We laughed a lot and got to know each other a bit. She was 30-something, and a 21 year recipient of her sister's kidney. She was a lot of fun, took my mind off my misery and as a result, I know I recovered faster.

Days three and four were pretty much the same. The Foley catheter and the sugar water portion of the IV were removed on day three. The epidural catheter was not removed until the morning of day four (this did a wonderful job of controlling what pain I did have). Once the epidural was removed, the Percocet I took for the pain worked very well. By this time I was getting around the ward with no problem, could get myself into and out of bed without the assistance of any of the nurses, was eating a normal diet and generally recovering faster than I ever expected. One of the nurses generously offered to wash my hair and with that done, I felt human once again. I spent a lot of time with my sister in her room (once she was removed from ICU), who was doing equally well.

On day five I was ready to go home. To my surprise, a nurse came to remove the staples. I couldn't believe it, only five days since the surgery and they wanted to remove the staples! I was sure the incision would split open and everything inside would fall out, but of course, that didn't happen. Tape strips, which the nurse said would come off on their own in the next few weeks, replaced the staples.

I spent the next nine days at my parents' house. The ride from the hospital, and rides anywhere for the next two weeks, required my trusty pillow to be placed across the incision area. I called it my "air bag." The only real problem I had once I got home was a very uncomfortable bout of constipation. I was told that could happen with the oral medication. So by the third day home, I was only taking Tylenol for the pain and the pain was very manageable. I also had problems with my upper back (across the shoulder blades) for about six weeks after the operation. My doctor said I was unconsciously

hunching over to protect the incision area. I made a concerted effort to stand up straight, but it took those six weeks for my back to feel normal again.

Lori was released from the hospital and into my parents' care just two days after I was. After about a week post-hospital, we made a trip somewhere each day just to get out of the house. As for the time I was away from work, I was very fortunate in that the company I work for has a disability sick leave program for which I was eligible. I was off work for eight weeks and had no problems going back. I mainly work at a computer and feel I probably could have gone back earlier had it been necessary, but it was good to have that time to recover completely and just absorb all that had happened.

In looking back, I have absolutely no regrets doing what I did and can say emphatically that I would do all over again! It's definitely been worth it. Lori is slowly recovering (she's not as young as she was for the first transplant) and we all expect her to return to some form of normalcy soon. My relationship with Lori has, obviously, changed. I still feel very protective of her, yet there is a much more wonderful bond between us, a friendship that will continue to blossom and grow.

I would like to publicly thank Steve Blakeman (his story can be found on TransWeb as well) for all his support and guidance. My family and I were well prepared for each phase of the entire process thanks to his unselfish sharing. Thank you, Steve. I also would like to thank the transplant coordinators, especially Connie and Tavie, at Clarkson Hospital. They have continuously made themselves available to answer each and every question I've had. Of course, I also thank my parents and the rest of my family. Words can't explain what their support and help throughout this has meant to me. And Lori, God Bless You and I Love You.

If I can help answer questions any of you may have, please feel free to e-mail me at:

khomaha@top.net

This account appears on TransWeb by permission of the author, Kelley Horrigan.

3. "I Hit The Numbers On My Birthday"

(Bone Marrow Donation Story)
Authors: OncoLink Team
Affiliations: University of Pennsylvania Cancer Center
Posting Date - June 10, 1996
Last Revision Date: Sunday, 14-Dec-97 21:56:27 EST

Editor's note: On April 11, 1996, Mike Hofschulte underwent a surgical procedure to remove a half gallon of bone marrow from his hip bone. The transfusion of this marrow was a last ditch effort to save the life of a man with Chronic Myelogenous Leukemia (CML). Since the original posting, Mike has updated his story in The Final Chapter.

I Hit The Numbers On My Birthday!
My Prize? The Gift Of Life...
A Bone Marrow Donor's Story
by Mike Hofschulte

On my birthday, a letter was drafted by P.W. from the Blood Center of Southeastern Wisconsin. This letter was part of the greatest gift I ever received and it changed my life. I was informed that I was an initial match for someone with leukemia who was critically in need of a bone marrow transplant to survive. She was requesting that I volunteer to undergo further testing to determine full compatibility with the man in need.

I hate needles, partly from being a pin cushion during my decade of active duty Navy service. Some vampires were much worse than others. Over the years, I developed a Pavlov reaction to getting stuck that sometimes put me on the floor! Yeah, I was a needle wimp. But in weighing it all out, I wouldn't let that get in the way of my decision to try to save this guy's life. It helped when both Sandy, the surgery nurse, and Judy at the blood center, enlightened me to the fact that 75 percent of all men were needle wimps anyway.

Many people have asked me many questions about what I've done, what I felt and why. Let me take a moment to answer some of them.

Why donate? Why should I care about someone I don't know? This is a very personal decision for most, but I don't mind telling why I considered it. In the last five years I watched four people in my family die. Two died very quickly, some say that they were blessed. But two suffered immensely, and as I watched them die slowly I wished that there was something ... anything ... that I could do to help relieve their pain. There wasn't a thing I could do. It was a very helpless, empty feeling.

I was now in a position to make a difference for someone in a similar situation. Without a bone marrow transplant (BMT), this form of leukemia, called CML, could claim it's victim in about 3 - 5 years, possibly sooner. With life-giving marrow this person's chances of a full remission (recovery -- free of cancer) was as high as 80 - 85 percent!

I also looked at the fact that, hey, if I came across a car accident and suddenly it caught fire with someone inside, would I do anything? Of course I would. My wife Eileen agreed that there was no doubt that I would try to help.

I signed the back of my drivers license to be an organ donor, but I'd probably have to be dead to do most of that donating. With bone marrow donation, I would replenish my marrow in about 3 weeks (and remain alive too).

My decision was almost immediate. I HAD to help this man survive. We already had something in common; a similar tissue typing.

What is Leukemia? Leukemia is a form of cancer in the blood. There are many types of Leukemia, but basically, it's like weeds in a garden. The "garden" being your bone's marrow. Stem cells, "baby" cells that mature into all types of blood cells, grow in the spongy area inside our bones called marrow. The "cellularity" of the bone's interior where the marrow is produced is the size of this garden.

Marrow is found in all our large bones and is the incubator for stem cells, which ultimately grow up to become blood cells. Red blood cells carry oxygen, white cells fight disease and platelets clot blood to close wounds when we're cut. Leukemias reduce the cellularity of the bone's marrow spaces, the "garden," by an uncontrolled growth of these cancer cells -- defective types of white blood cells.

Red blood cells are supposed to be produced at a rate of 1 billion an hour, white blood cells are usually manufactured at 400 million an hour and platelet production varies in person to person. Bone cellularity should be around 50 percent. When it's reduced by cancer cells that crowd out the areas where these stem cells mature, all types of blood cells can not be replaced at a rate fast enough to grow and become productive, working blood cells. Eventually these good cells can not replace themselves fast enough to sustain life.

BMTs are also used to treat many other diseases (I once heard as high as 80 diseases) including Aplastic Anemia, Multiple Myeloma and Breast Cancer.

How will your marrow help this person? My marrow will replace his destroyed marrow and hopefully take root (engraft) in his bones and grow. Waiting to engraft after BMT can be anytime between day +14 to 19 after the bone marrow transplant, but there are always variations on those numbers. In its simplest form, it's a little like an oil change -- out with the old destroyed marrow, in with the new. (Although they don't really remove the destroyed marrow.)

How Were YOU Selected as a Match? Matching is much like hitting the lottery numbers. To date, of the over 2,000,000 people typed by the National Marrow Donor Program (NMDP), only around 4,300 unrelated people like me have been fortunate enough to be selected to donate. Currently only 65 percent of all people requiring bone marrow transplants can find a suitable donor. Thirty-five percent are not so lucky. The key to unlock their disease is in the bones of someone still untested.

In March of 1994 there was a bone marrow drive at Johnson Controls, my previous employer, to help an employee with leukemia. It took a little courage to go down to do it, but I wanted to try and make a difference. I just turned away when I was stuck. Only about two tablespoons of blood were drawn to be tested. I never matched the man I was tested for, but I volunteered to have my typing work placed in a national databank.

Typing involves a process similar to the blood typing system (i.e., A+, AB-, O+, etc.), but it's much more complicated. HLA (Human Leukocyte Antigen) matching is a combination of 6 major tissue typings that must match between the donor and recipient of the marrow. HLA markers are found on the surface of the white blood cells. These "soldier white blood cells," known as T-cells, identify what is from our body and what is a foreign

enemy (i.e. disease, virus, bacteria, infection) to be fought by the immune system. The doctors search for a 6/6 match in the registry, but even that doesn't guarantee a successful BMT.

There are hundreds of minor antigens that also affect compatibility. If we do not match well enough, my cells could react against his cells in a disease known as Graft vs. Host Disease or GVHD. The donor's bone marrow "T-cells" conquer in a battle with the recipient's T-cells. It is usually not fatal, in fact a small amount of GVHD is good, much like a vaccine with a small amount of a virus ultimately protects us from that virus. Theoretically in Graft vs. Host disease, the donor's T-cells go to work killing off any remaining Leukemia cells not yet destroyed by the chemotherapy and/or radiation treatments given prior to the actual BMT transfusion.

Two "HLA-A" antigens, two "HLA-B" antigens and two "HLA-DR" antigens are inherited from each parent, resulting in pairs of numbers, for example: "A2, A24; B3, B13; DR4, DR6." Scientists have discovered 24 different HLA-A types, 52 HLA-B types and HLA-20 "DR" types. There are over 600 million different HLA typings when you put together all the possibilities (in combinations of six). Some typing pairs are predominate in the population, though, so the chances of matching someone in need are more realistically in the 1 in 20,000 range.

The DR typing test is more expensive than HLA-A / HLA-B typing, so initial HLA work-ups sometimes detect only the HLA-A and HLA-B antigens and the potential donor has only four of their six possible typing numbers initially on file. Think of this initial match as matching 4 of the 6 lottery numbers. Currently only 49% of the people in the registry are DR typed. S. G., PR Director at our local blood center, reported that they are now trying to get all six HLA numbers from the initial blood test.

My four numbers for HLA-A and HLA-B typing work were discovered to be a partial match (4 of 6) for this man with leukemia. This occurred two years later than the date I first entered the marrow registry by giving that original blood sample. I was then called back for extensive, and expensive (but not to me), DR typing for the last two antigen numbers.

Our blood types do NOT have to match -- but his blood WILL change to be A+ like mine after the procedure. Also, he may pick up any allergy I might have. Other strange things may occur. In some rare cases the recipient's hair, lost during the BMT process, has returned a different color and texture. For example, originally blond and straight, after BMT it could grow back black and curly. One BMT recipient commented that her so called "wig" was her REAL hair and it cost her a million bucks to do it! Another BMT recipient informed me that hair follicles can be changed by the chemo, and this hair change is not really caused by the donor's marrow.

Dr. Robert Graves, the Navy, and others, originated the National Marrow Donor Program (NMDP) in 1987, primarily to build a databank of tested and typed people. In the event of a nuclear submarine disaster, these volunteers were willing to help supply bone marrow for the crew who might need BMTs to survive. The Navy still pours money into the program to this day, some of it to pay for the testing of individuals with an ethnic heritage to increase the diversity of the national marrow registry. Matches are most easily found in people with the same heritage, but in some cases, for example, Caucasian donors have matched and helped African Americans and vice versa.

Because of genetic make-up and/or ethnically mixed backgrounds, the possibility of finding a compatible donor match is more like 1 in a million for some. This is especially true for people of African American, Hispanic, Native American and Asian ancestry. Few of their typings are in the databank registry of HLA typings at the National Marrow Donor Program (NMDP). Over 70,000 people were tested in drives to help Michelle Carew, the leukemia-stricken daughter of baseball great Rod Carew. Not one of the over two million people on the registry matched her, partly due to her unique HLA typing as a result of her ethnically mixed background.

Although at the time I entered the registry, I was comforted by the fact that I probably would never be chosen (remember that I hate needles), I now considered it an enormous privilege to be chosen to save a life! The potential outcome of giving someone a "re-birthday" far outweighed any concerns I could have for myself and my petty little fears. It was something I had to overcome, for this man's sake -- for his life!

How Did You Deal with your Fears About Donating? I never thought I could be happy about any operation, especially after avoiding hospitals and needles at all costs for most of my life. Once, when the blood center called to ask for a pint of my blood, I must admit that I turned them down. "I get deathly ill." I said (still feel guilty about that one). I also avoided necessary stitches in my leg and now have a huge 6 inch scar as a result.

I found that accumulating as much information as possible helped me deal with the situation. I surfed the Internet for as much information as I could get my hands on. I printed off a small book of stories, HLA typing information, and whatever else I could find. I approached the situation as a reporter, thoroughly researching my story. Also, I joined a bone marrow transplant electronic mail support group called "bmt-talk" and met many friendly people who have had BMTs. Rosemary & Paul, Amy, Bob, Lorraine, Susan, Carol, Nancy and tens, if not hundreds of others shared their stories with me.

I began to fully understand the magnitude of this "gift" from the viewpoint of someone who needs, or has had one. One of their email posts became my motto: "THE TWO BIGGEST FEAR BUSTERS ARE KNOWLEDGE AND ACTION." I was working on the knowledge part and ready to jump into action. I also drove my friends nuts talking about it! I was as determined to get the message out as I was doing my "therapy" to relieve anxiety. My enthusiasm encouraged M. H., an African American, to be tested. He is now heavily involved in recruiting others to join the registry.

The thought crossed my mind about what would happen in the remote possibility that I died during the surgery (who knows?). Nobody ever died donating marrow before. Still, I made a few plans but I knew it was a very low risk procedure for myself as the donor and was at peace with the whole thing. Some strange sense of calmness, excitement and anticipation surrounded me and the fear was virtually eliminated by the day of the marrow harvest operation. In fact, I was joking with the doctors on the way into surgery.

Finally, a clinical psychologist by the name of L.E. called me at home as result of seeing a TV6 news story about me on April 4th. L.E. said he admired what I was about to do and that he wanted to provide a free service to rid me of my fear of needles. He had more sheepskin on his wall than the average flock of the animals! He was for real. I walked in skeptical and left a believer. He used a technique called EMDR - Eye Movement Desensitization and Reprogramming and my phobia was gone in 30 minutes! I'm going to be a regular blood donor now, every eight weeks.

Does a potential donor go through any more preliminary testing? Yes, about 5-10 hours worth of exams and counseling sessions. That didn't include travel time in my case, which was only about 15 minutes wherever I had to go.

I was called by P.W. and she asked me to come to a meeting with Dr. R., the lead NMDP doctor, and herself at the Blood Center of Southeastern Wisconsin, located in downtown Milwaukee. I asked so many questions that a 1-2 hour meeting lasted three hours. I probably asked questions the doctor never thought of before because he had to really think about some of them.

P. wouldn't let me say YES that day. I had to wait 24 hours to think it over. I was never pressured in any way to agree to the procedure. She volunteered to write letters to my employers for the time I would be out. My employer, Rockwell Software, and my boss Terry Dunst, couldn't have been more supportive of what I was doing. I called P. with my answer in about 18 hours. She accepted the "Let's do it!"

We got started. On Valentine's Day I gave 9 vials of blood for the second stage of compatibility testing * The DR typing. Many potential donors start getting excited at this point, only to find that they really don't match after this stage of testing to find the last two "DR" numbers of the HLA typing. It's like the lottery again, only you've got four matching

numbers and are trying for two more out of the 20 possible DR HLA types. One lady I talked to had the initial testing done three times before for other people until her true match and donation to a man on the west coast. One donor I know was tested five times.

I had a good feeling that I was his type, so to speak. They also used some of my blood to mix with the recipient's blood and watched to see if our blood would "fight" each other. It didn't.

Later that month, I discovered that I was selected for an Officer program in the Naval Reserve. The next day I found I was selected again, as a perfect match! I felt incredibly lucky and started buying lottery tickets as a result.

All my costs are paid by the recipient's insurance, so what looked to be over $20,000 of marrow donor expenses would be bills that I'd never see.

Now that you're a match, what next? The next phase of action had me at Dr. W. M.'s office, a doctor of Oncology -- a cancer doctor, an "OncDoc". The Federal Transplant Act of 1990 requires a physical by a neutral third party. This same law also prohibits the donor and recipient from knowing each others' full identity for one year; although we can still communicate on a first name basis via the blood center.

He checked my general health and determined how much marrow I could safely give. The surgeons can take a maximum of about 0.31 ounces of marrow per pound of body weight (or 20 ml. per kilogram, for those metrically inclined). The exam was more thorough than my active duty Navy departure physical. I needed a free physical anyway, since I hadn't seen a doctor since leaving the active Navy. He explained away concerns I had about the white spots on my chest X-ray when I sneaked a peek earlier. "Just blood vessel nodules." he told me.

After clearing this hurdle, I began giving my "auto-units," the two pints of blood I'd be giving back to myself during the surgery. Not everyone needs to give blood for their own bone marrow surgery. But with the quantity they needed from me, it became a necessity. To my knowledge, 1800 milliliters (about half a gallon) is about the most marrow a donor has given to date.

Later that week, I received another physical from the surgery physician's assistant J. Who explained the whole procedure in detail. She asked me if I was a runner or other type of athlete, because their bones are harder and require more drilling force. This was far from my situation . I warned her that if that's the case she might punch right through one side and out the other! I don't work out much.

Her hip bone model with holes in it looked to be that of a 10 year old. She showed me the "Jamshidi" tool they used to harvest the marrow from the top of my hip bone, the iliac crest. This tool is a combination drill and syringe tool that is a tube holding a 1/8 inch steel rod inside, cut off diagonally at the end. That's its drilling point, operated by hand with it's blue T-handle. She described how it was screwed into the bone until it hits an area that feels like interlocking mesh gauze. That's where the marrow is.

When they hit this spongy marrow blood cell factory, the "drill" is then pulled out and a syringe in screwed on the threaded end. When one socket dries up, they poke for another area or go deeper. The surgeon usually digs five new holes in the bone from the same incision point by manipulating the needle at different angles. They can also go three levels deep into the bone per hole.

What happened on surgery day? I awoke at 5:30am to shower with a special antibacterial soap as my first prep for surgery. My wife drove me to the hospital, arriving at 6:15am. I had the first surgery that Thursday, they called me the night before to inform me of that fact.

I changed into a hospital gown and put on booties and a blue hair net made of the same semi-transparent soft mesh stuff. I denied a wheelchair ride to the surgery-prep center, waved goodbye to Eileen, and walked with a nurse to my curtained prep-suite. The first test of my needle-fear treatment was to occur. I watched my IV go into a vein of my left hand and passed the test with flying colors.

The first try by the anesthesiologist, Dr. D., was unsuccessful, so I also watched a second time as the nurse tried again in my right hand, successfully this time. Dr. H., my surgeon, walked in to introduce herself and I joked with all as I was wheeled into the operating room. I looked around for about two minutes, then unexpectedly was OUT COLD! I didn't dream a thing. I thought I was supposed to count backward or maybe get a gas mask put on or something just before going under. I could've chosen to stay awake by getting a spinal anesthesia, but at the time I chose I was a needle-wimp.

During my surgery six incisions half the size of a pinkie nail were made to allow insertion of the tool (incisions that small required no stitches and didn't even hurt like cuts usually do when I woke up!) Two doctors worked both sides of my hip bone at the same time. Dr. H. on the left and P., a new physician's assistant, on the right. (J., the original physician's assistant who checked me out had suddenly become ill, so P. came in on her day off to do my harvest.)

After the hole was cut in my bone, the "drill" portion of the tool was removed and the syringe was screwed onto the threads of the Jamshidi. My marrow was then sucked out by pulling the syringe back, much like collecting a regular blood sample at that point. Some marrow comes out as thin as blood, others have very thick marrow and comes out a drop at a time. Mine was described as a medium "stubborn," so my operation took 2.5 hours. My sister Deb is a nurse who observed a marrow harvesting operation. She said the marrow she saw looked like "jelled strawberries." After collecting it in the syringe of the Jamshidi, they squirted the marrow into a jar with a filter over the top to strain out bone chips.

When I awoke in the recovery area, Eileen was there. I was groggy, but remember the courier who was flying my cooler of marrow somewhere east to the recipient had to return from the airport to get more vials of blood. These were ordered by the transplant center. They popped an IV tube installed when I was under specifically for drawing blood for tests. How nice of them, I thought, that they didn't have to keep sticking me for blood samples.

Six cuts are laid out on my back like a "V" following the contour of the top of my hip bone. There are now about 30 holes in that bone. I was told by Al Anderson, a fellow donor (in 1985), that an X-ray of my hip bone right now would look as if I was hit with a shotgun blast! This all heals over soon and I didn't feel the bone holes at all. My marrow will all come back in three weeks. The pain is really not pain at all. It's more like a muscle ache, much like when I laid 15 pallets of sod with my brother in law Rich for his new lawn last year. My ache was completely gone in less that a week. Some people don't feel a thing!

My own immune system was not weakened in any way by the procedure, they only took about five percent of my body's supply.

Most people leave the hospital on the same day, but my blood pressure was too low. I stayed in the hospital overnight, watched Seinfeld, and was pumped up with 6 liters of fluid. I felt better by 8pm and the nurse went for a walk with me. My fingers were like bratwursts and my cheeks looked as if I blew them out like a chipmunk. This all went away soon. Despite my recovering state, the feeling was pure exhilaration, a high as intense as being at the birth of each of my three children! Nothing else compared.

The next morning I gave another blood sample to be tested and J., a third physician's assistant, pulled off the pressure bandage on my back. I wished I was either less hairy or had been shaved. It was the only thing that was close to hurting. Dr. H. and J. came back later and told me all about the surgery. When my family arrived I was released and I walked out. I fixed my vacuum cleaner that day.

What Happens to the Man Who Needs Your Marrow? I learned that this man was prepared starting about 10 days before the procedure. He is brought the edge of death with a procedure called Total Body Irradiation (TBI). Massive doses of chemotherapy and possibly radiation therapies are given at a level much higher than the body can withstand under normal circumstances. I had to sign a grave statement earlier that if I was to back out, this man WILL die. TBI is meant to kill all the cancer, but it also destroys some "good cells" in the process. Some of these good cells are the hair follicles (that's why the hair falls out), the entire digestive tract - no saliva or other digestive juices - and the bone marrow, which is completely destroyed in the TBI process.

He also loses his immune system as a result, because the marrow they killed off makes the disease fighter cells. During this time it's especially critical that he avoid all infections, or it could easily take over his body and he could die. A donor friend of mine lost his BMT recipient Roger in this manner. The emotion is like a death in the family after all you've gone through to save his life. Some people live in a plastic sterile bubble, but I've heard of people sent home during this critical recovery phase. Some doctors say a home can be more germ-free than hospitals.

My marrow was transplanted into this man via a painless transfusion. He may have received all 4 and a half blood bags full of my marrow, but some transplant centers treat the marrow with a process called T-cell depletion to make it less likely that he'll experience severe Graft vs. Host Disease. The marrow finds its way into the bones and "engraftment" takes place when the new marrow begins making an adequate number of new cells. Only then does the immune system come back. The white cells are the first to come back and when their counts start rising the patient usually starts celebrating!

What are the Personal Rewards and Reactions of Others? People have called me everything from completely nuts to a saint, but I'm neither, just an average guy trying to make a difference. Almost anyone could do what I did.

I've received two cakes, a card and thank you plant/balloon from the blood center. I also got a "save a life" T-shirt from the blood center, usually only given to those who have donated 8 pints. We joked that, for a shirt, a half gallon of marrow donated is the equivalent of a gallon of blood. Our blood center also has an annual banquet for all the donors who gave that year.

I received overwhelming support from my email friends and all others who discovered what I did. A neighbor called me in tears to thank me for what I was doing. The doctors and nurses took extra special care of me and often let me know what a great thing I did.

The vampires were all gentle and all did their jobs expertly. I'm not too bad with needles now. My dad even told me he was proud of me for the first time in my life. Patty from the blood center came bedside after the surgery and told me his name – Robert. This meant a lot to me.

But the biggest reward that came out of me donating bone marrow was the tremendous great feeling I got when I was able to come to Robert's aid and hopefully save his life. He's 50 years old now and could be free of this disease right now! He can be there for his family and see their weddings, births, celebrations.

Robert will be able to watch his family grow and provide his wisdom to them for many years to come. He'll be in the good memories of his children, grandchildren, maybe great-grandchildren and making a difference in this world himself. He may even be the one meant to cure cancer.

I would do it again in a heartbeat – they wouldn't be able to get me into surgery fast enough. My marrow donation was the fifth best day of my life, next to the days my children were born and my wedding day.

Please consider donating that small blood sample, as I did in March of 1994, to register in the National Marrow Donor Program registry of lifesavers. Being chosen is like winning the lottery! It'll change your life, and could save another!

More information can be found on the Internet at http://www.marrow.org or call the NMDP at 1-800-MARROW2. To subscribe to bmt-talk, email a message to bmt-talk@ai.mit.edu and just type the word SUBSCRIBE. You'll meet a bunch of great people with big hearts and learn tons of the latest information, sometimes faster than the doctors discover! Your local blood center may also be able to help, and get you tested, typed and registered into the NMDP databank of lifesavers. If you have been contacted as a potential marrow donor and would like to discuss your concerns with me, I'd be happy to talk to you. My email address is: michael.hofschulte@software.rockwell.com.

The Final Chapter

I'm sad to say that Robert died on Jan. 9th at 10:45pm in Virginia. His wife and sons were with him. He contracted a respiratory disease known as Aspergillosis. This condition was unrelated to the transplant back in April, but his weakened immune system was unable to effectively combat what a full-strength immune system handles every day.

I did my best to help him have a fighting chance. I wished and prayed just as much as his family that this would be a success, because, you see, we WERE family. We exchanged many letters, via the blood center's editors, and we became like brothers. In fact he called me "Bubba" which he said means brother. His last words to me in his Dec. 2nd letter were:

> "I wish good health and happiness and fellowship to you. Please stay in touch with me, I am sorry that I was late in getting back to you. However, I hope you understand. Again, we appreciate so much what you have done for me and my family. This is your blood brother "Bubba" signing off for now. Stay in touch! Thank you!"

I hope his family decides to contact me someday. I would love to learn more about what a great man Robert was. I released my personal information to them, but understand that they are grieving now.

I've received hundreds of very kind responses from all over the world. I just hope I've been able to help others as a result of my experience. A number of readers have gone out and were tested as a direct result of experiencing my story with me. That's a great feeling. I was also able to help many more who have successfully matched. Sort of a selfproclaimed BMT donor Internet guru. Always happy to help. This has become the living legacy of my experience.

It was a strange, yet wonderful situation to be in. When marrow donors get wrapped up in this whole process of donation, we prepare ourselves to carry this emotional baggage of being part of a life or death struggle for someone we may not even know. I guess one is never fully prepared for the worst, though.

Yeah, it hurts like hell, but yes, I'd do it again. I'd DEFINITELY do it again. In the meantime, I'm a regular blood donor now. I just hit the first gallon point, and will continue to donate blood until my marrow numbers come up again. I donate blood in memory of Robert. May he rest in eternal peace.

Don't let Robert's death discourage you. The NMDP says about 40-60% survive the procedure. Better odds than a sure death sentence for these people who need it.

I encourage you to help, and talk others into helping too. Imagine, YOU could possibly affect the future by helping to keep someone on this earth longer! GOOD THINGS CAN HAPPEN!

As I've said before, this person, if he or she were to survive with your help, could literally be the one who cures cancer, or possibly saves the earth from doomsday. Maybe though, you may just extend the joy of a very common person's kids or grandkids ... hopping on your recipient's lap, or sharing those great big hugs! Who knows? You could be a part of a VERY wonderful thing!

SHARE YOUR HEALTH! -- God Bless You. --Mike

More information can be found on the Internet at
http://www.marrow.org
or call the NMDP at **1-800-MARROW2**
To subscribe to bmt-talk, email a message to
bmt-talk@ai.mit.edu
and just type the word SUBSCRIBE.
You'll meet a bunch of great people with big hearts and learn tons of the latest information, sometimes faster than the doctors discover! Your local blood center may also be able to help, and get you tested, typed and registered into the NMDP databank of lifesavers.
If you have been contacted as a potential marrow donor and would like to discuss your concerns with me, I'd be happy to talk to you. My email address is:
michael.hofschulte@software.rockwell.com

4. "A Badge Of Honor"

(Living Kidney Donation By A Brother)
Donating A Kidney To My Sister
San Francisco, May 31, 1994
by Charles M. Uzzell

"I wish neither to gloss over the difficult parts, nor oversell you on the gloriousness of this experience..."

My sister needed a kidney; I had a spare. I had no trouble deciding. It was just a known fact in my mind, a given, a no-brainer. When I heard her kidneys were failing, I knew somehow that I would be the one to give her a new one. I appreciate the mixed feelings one has when deciding whether or not to give an organ. I am, after all, scared of needles and hesitant even to give blood, which I have done twice just to find out for myself that I really was afraid of needles. For twenty years, I watched my friend Tom Moore suffer with end-stage renal disease and through two transplants. End-stage renal failure is not usually fatal in itself.

There is, however, strong evidence that the recipient will be better off with a living related kidney instead of a cadaver kidney. In laymen's terms, the kidney will be fresher and probably a closer match, so will last longer with less drug therapy (and the drugs killed my friend Tom Moore). Also, the recipient, your relative, will not have the agony of waiting for a cadaver kidney.

You should know that there are people in the medical community that will not perform or sanction living related transplants because of the unnecessary risk to the donor (i.e., why operate on a healthy person?). Having been there, and seen the improvement in my sister's life, I think it was worth the risk. How often do we see our loved one suffering, and can actually do something about it?

IMHO you should weigh the factors and assess the situation on your own. Decide in silence without consultation with any other human being. The big issue, really, is can you afford 6 weeks off your feet while your body recovers from the surgery? When you decide to proceed, then you will get opinions from many different persons. It is similar to what pregnant women experience; they invariably hear a lot of good-and-bad birthing tales. A social worker, who can independently prevent the transplant, will ask if you are being forced into or paid for your potential donation. My interview with the social worker I found to be very helpful and confirmed my decision.

The right decision for you, however, might be NOT to donate. I fully uphold your right to decide on your own. I do not know of any donors that are not between the ages of 21 and 65, but they might exist. You must be in good health and not at risk for kidney failure yourself (one of my brothers had nephritis as a toddler). I am not supposed to play football now, but I can participate in any other sport. Since I run my own business, I needed a good excuse to take a 6 week vacation. My sister Monet lives in California and I still live in our hometown of Raleigh, North Carolina.

Finding out if you are a match involves a simple blood test. The local lab folks drew some vials of blood (one stick) and Fedexed the samples to California. I was the first to volunteer in our family of five. Then I turned out to be a perfect match! This moment was the most emotional one of the whole thing, when the results came in. My mom was there and we both cried. All six antigens matched, despite the fact that my sister and I have different blood types.

Then I got a super bang up physical. (The bill, paid by my sister's insurance, was over $900.) My doctor, at the start, asked if there was anything wrong with me. I said I was out of shape and a little bit overweight. They took blood and poop and urine and ....did I miss something?...and poked and prodded, etc. etc. I had never had such a good physical. After all that, he said, " You have no contraindications for the transplant, but...you're out of shape and a little bit overweight."

Our transplant was at California Pacific Medical Center in San Francisco. The hospital folks are great. All the procedures that I dreaded turned out to be nothing...the IVP, needles, etc. It was major surgery, however. The transplant coordinator is your best

friend. Mine was Sarah, a 5th generation San Franciscan. Tall, beautiful, easy to smile and a doer. She got results. Dr. Bry was my surgeon. He is a shy, handsome man. Appears to be young, but if you look closely, he has been tired a lot, which is mixed in with a few laugh lines. He is confident, knowledgeable and pleasant. They answered all my questions both big and small.

I have really fallen in love with San Francisco. So gorgeous and sparkling; like no other city I've seen. My wife and I had a lovely trip down the coast of California. We went south from San Jose all the way to Hearst Castle, a cool place to visit. Then we stayed at the Ragged Point Inn 15 miles north of San Simeon on CA 1. Beautiful inn. Big Sur is awesome.

I had to be in the hospital for an IVP and arteriogram on the Friday before the Monday transplant. These two procedures I was dreading, but they were nothing other than boring. My wife stayed through that, but she was not interested in being at the hospital during the long-winded surgery and recovery. She flew home and took care of the kids and worked hard at our Montessori school. My mom arrived to take care of us, and I suggest you have some support available for the big day. Imagine though, how my mom must have felt, having two of her kids in surgery the same day. Meanwhile, we received some flowers from the Puryear's several days before the scheduled surgery date. These were wonderful while hanging out at Monet's house; don't forget to remember folks during the weeks leading up to the transplant.

Check-in time at the hospital was 6 am. Monet lives an hour away from San Francisco, so we spent the night at Bill Grove's house in the city. The fellow in admitting at 6 in the morning was a kind, graying gentleman, directing people this way and that to the proper place. Otherwise, the whole lobby was quiet and subdued at that early hour. He checked me in. Then he stood, like he had done with 3 previous patients, walked out to the hall, and said, "You go down to Same Day Surgery. All the way down the hall, last door on the right, take the elevator to the 6th floor." He sounded just like a scene from the

Monty Python movie Life of Brian, "Crucifixion? Good. Line on the right, one cross each." He was sweet, polite, but routine. I thought it humorous and it put me in a good mood for the preparations.

We said good-bye in the lobby. My sister and mom had a difficult wait-time while I was in surgery. Tina visited them and was very upbeat and talkative, which helped to pass the time. I was in surgery too long, an extra 2 hours or so. The doctor, when finished, went out to them in the waiting room. He said it took extra time because I was a big fellow and had an extra vein leaving the kidney; but all was fine.

Then Monet was prepared for surgery; Dr. Bry did both of the operations. I used to think, perhaps because TV portrayed it this way, (read the newsgroup or see FAQ bit.listserv.transplant), that both people are there in surgery together, and the doctor rips it out of one person and dumps it into the other. Really, there is a couple of hours delay between the two operations. They finish the donor, flush out the loose kidney with some solution, and keep it fresh with some TLC. Then the recipient goes into surgery and ...that is another story.

I was quite jovial going into surgery, during prep. In retrospect, I was probably kinda' weird. It is said that humans going into religious martyrdom have elated emotions. There was a woman going in for a hysterectomy that was just about in a scream. I, the patient in the next wheelchair getting prepped for surgery, was able to calm her down and we had a good chat. So if I am ever accused of any sort of magnanimity or something, it is for helping out this woman It was nice to have somebody to talk to; I was rather talkative, I think, but not physically shaking. This part goes by very quickly. I was taken into a room just outside the operating room, got on a gurney, and had an epidural inserted and then was anesthetized. The doctor and nurse later said I was telling Bill Cosby jokes at this point, but I have no recollection except the nurse's smile. I have always loved the tape, Bill Cosby "Himself."

My next memory is someone shaking my shoulder, saying, "It's over. You're in the Recovery Room. It's over." And being nauseous. This was probably while being wakened for a check-up. I think it is very odd that we humans seem to have a sense that time is missing, even when we've been completely unconscious. (Like what happened in this Star Trek TNG episode when Data tries to get them out of a jam.) In other words, there was only an instant in my mind between the nurses smile and 6 or 8 hours later waking up briefly in Recovery, but something else in me acknowledges the missing time. Wonder if I was still talking? Lordy, and we worry about pooping on ourselves and that sort of thing.... BTW, they always insert the Foley catheter while anethtisized; this actually the only request I made of Dr. Bry. It was already in the plan. There is no pain at this time. It's sort of foggy, really.

At 6 p.m. the same day, they put me in a room. The gurney bumped on two sides of the doorway going in at an angle. This did not hurt, but it is a memory, and I woke up and pretended to help. I was conscious of a roommate. My mom and Barb squeezed my hand and had brave, happy faces, but I could tell they had been tense, like staying up for two days studying for an exam. Tina was there somehow, and my other sister Holly arrived from South Carolina.

Nausea is the big problem at this point. Some nurses helped me move and I stood up next to the bed! But this made me dry-heave. I felt not pain, but a tightness around the waist. Like having a belt on 2 notches too tight. I am not fond of throwing up, so this is the thing I hesitate to report to you. I hope this report will help others to donate blood, kidneys, portions of liver, and marrow. I wish neither to gloss over the difficult parts, or oversell you on the glorious experience. I was given medicine for nausea and slept.

At one am, the IV type drip into the spinal epidural ran out and beeped. The night nurse changed the bag and re-started the machine. The new bag of drugs did not work! The epidural had stopped functioning. The pain was on my left hip, very near the waist line towards the outside, a good 4 or 5 inches from the incision site. The incision site did not hurt, but the bandages or something continued to give a sensation of tightness. The pain was from the superficial nerves that are cut during surgery that serve the leg. I think this is called referred pain. Blissfully, I remember that I experienced pain but do not have memory of the pain itself.

The night nurse hourly gave me pain shots that helped a lot, but I was not very comfortable this first night. The other side of my body was "asleep" and sending messages to turn over, but I couldn't lie on the bandages' side either. The doctor had said that I would be in so much pain the first day that I wouldn't worry about the Foley catheter. Right he was! A nurse, Charlene, saved me at 9 am the second day when she checked me then immediately called the doctor. The anesthesiologist puzzled over me for a bit, and checked piping, etc. Then he injected some stuff and said I should immediately feel a big difference. Nothing. He un-taped me. Man, I was wrapped like a mummy. Then he put me on a morphine pump, via the IV tube already in place. RELIEF. I did not have any more pain, normal by comparison. Morphine, I guess, would be my drug of choice (LOL). Really, the morphine pump is a fabulous invention. For a positive experience with spinal epidurals, see Steven Blakeman's account on TransWeb .

The Foley catheter was bothering me. not because it hurt, but because it would flop around and pull leg hairs. A Doctor came by with a group of about 5 students (residents?), and asked how I was doing. I said, "Okay, but the Foley was bothering me could I have a little piece of tape?" He turned to his students and asked what they would do, but before they could answer he said, "Take it out!" And I said, "No!" because I couldn't imagine going to the trouble to pee. The students were slightly amused that anyone would say NO to that doctor, but Doc was not phased by my request. The nurse came in after a few minutes and took out the Foley. It does not hurt in the least to have it removed, but is a weird feeling. It took the rest of the day before I could pee, and I feared that they would put the damn thing back in if I complained, so I didn't. Later I would fully realize that I was receiving excellent care, and they would concede to just about any request.

This was June 1, my second day after surgery. I was able to walk down the hall and visit my sister. She was doing great! You know my big fear in all this was not that I would die, but that the transplant might fail or the kidney be rejected. She had some drug dosage issues, but few surgery related difficulties. And she had a VIEW. Man, her window was like sliding door size and looked out over the most beautiful city....

Other than hurting my back at 6 weeks post-surgery, which lasted a couple of days, I did not have any more problems.

Living-related kidney donation is beyond any experience I have ever had before, and is difficult to properly describe. Perhaps blasting off in a rocket is comparable. It is something for which you train, test, practice, and think. It affects many people in your life, and could be dangerous. When the moment finally arrives, it goes by so fast that it is almost anti-climactic. The end result is the enrichment of another, and consequently, your own, life. The event has a certain routine and known result. Circle the moon and return safely to meld back into a normal life. Always the knowledge is there, but I am no different or better than anyone else. I have a lovely scar to show off, my badge of honor. And as my friend Brad said, "All badges of honor with women involve big scars."

Charlie was my roommate in the hospital. He was in for gall bladder surgery and ended up in the transplant ward because of overcrowding on another floor. He was 86 years old and the liveliest trick you ever met. He and his wife Bea have been married for 60 years and 7 months. "What do you do on your 50th wedding anniversary?" she asked, and was going to tell about their month-long world cruise, but Charlie piped in and said, "Go to bed." Smile. Monet and I visited them after leaving the hospital. We had a fabulous lunch, saw Bea's paintings, and laughed heartily. They traveled a lot. Got dysentery in India, and were mystified by the burial practice of letting the vultures eat the dead, and all that. Bea told about their trip into the Grand Canyon on donkey-back. Charlie said she got off the donkey in the same shape that she had been riding. Couldn't move. Completely paralyzed.

They are a fun and happy couple. Bea was born in the Mission District in 1908. Charlie was born in Nebraska but lived whole adult life in San Francisco. Charlie met Buffalo Bill and Annie Oakley when they were doing their big show. Other quotes from Charlie: "You know what's wrong with your generation? You think you invented sex." ..."Golden Gate Park used to have squirrels, and little rabbits, but the hippies ate them." "I thought the hippies were vegetarians." "I guess not." We were standing on Twin Peaks, looking down at the Slot, Market St. Everybody either lives North or South of the Slot. ...When about to go down for his gall bladder surgery, Charlie said, "Here I go. They're gonna' make me swallow a speedometer cable."

Thank you to the following folks: Gary Garchar for love, support, and the ride to the hospital. Susan Goff (another LRKDonor) for the ride home from the hospital. Charlie & Bea, George & Betty Barbara Langworthy for plants, meals, love circle, helping momma. Tina Scott and Cecco at the Dolphin Club. Gael Sullivan and all the circle friends. Andrea. Mom & dad, Holly & my folks. B3 & Grammie. Charlene, Lousie Clemmer, Margaret Dale, Becky Beston, Martha Brown & Mark, LA & Tripp, Mary Faith, Scott & Karen, Chris, Kay, Bryce, Becky, Armand. Mary Ann & Mark, Barry, Harmon, Chris, Karen, Cindy & Anna, Jim Jam, Clay & Mary, Jack & Connie, Temple for the bike pump, the book, & watching the kids. The Puryears and the Pettys, Ruth Bailey, Mary Louise Uzzell, Susan, Albie & Jonathan. GG who is most likely now enjoying heaven. SPC and Claris, Joan & Ed, Toler, Ann Bibb, Terry & Doug, and my sweet kids, Molly, Puff n' Pete.

Hey. I always wanted to thank these folks in some way other than the traditional card I sent. Feels like an album cover or something.

If you have comments or suggestions, email me at lmno@mindspring.com.

My home page is located at http://www.mindspring.com/~lmno.

This story appears on TransWeb by permission of the author, Charles Uzzell.

All rights reserved.

5. "Better Than Giving Her Flowers"

(Living Kidney Donation By A Husband)
...A Live Kidney Donation
by Dave Barnekoff

In July of 1995 I donated a kidney to my wife.

Since the donation I have had people comment "You were really brave." and "Donating a kidney is the ultimate in sharing." Although these comments are nice, the real satisfaction is knowing that by donating a kidney I could really make somone else's life significantly better...I could make a difference.

My wife has polycystic kidney disease. A hereditary disease which reduces/destroys kidney function over time. During early 1994 she began to have complications as a result of her disease. She was admitted to the hospital several times. By June her kidney function has deteriorated significantly. During October she was back in the hospital again for several days and on December 27th, two days after Christmas, her kidneys failed. The doctors immediately put her on hemodialysis.

In early February, 1995 we went to UCSF so my wife could take the necessary tests to be placed on the waiting list for a donor kidney. While at UCSF the Transplant Coordinator ask if I had considered the possibility of being her donor. I wish I could say I had, but to be honest, until then the possibility of being a live donor had never crossed my mind.

To be considered as a donor I had to take a series of tests. The first test was to determine if we were compatible...at least our tissues!!! We received the results back in mid February. We were compatible. Having researched both of our family's geneology over the years this news led to a dusting of yea olde files to determine if I had married my sister. The odds of two unrelated people matching is several thousand to 1.

Finding we weren't related I scheduled the remaining tests to determine if both of my kidneys were functioning fully and tests for an old stomach problem. Over the next two(2) months I passed all the tests with flying colors. We then scheduled the operations to take place on July 20th.

The Transplant Coordinator offered to talk to our two(2) young sons about the operation. Although we had kept our sons informed, this was a chance for them to talk to a third party about the operation. The Transplant Coordinator put on a first class multimedia presentation using charts, pictures, slides and a tour of the ward where we would be staying. I believe this significantly reduced the fears they had regarding the operation.

Several weeks prior to our operation our Transplant Coordinator also put us in contact with another couple who had undergone an organ transfer three(3) weeks earlier. This was very important to me as it help set expectations as to what was to happen during my stay in the hospital.

Day [-1]

UCSF scheduled us for admittance on the morning of the 19th for the pre-op blood tests, x-rays and visits with the surgeons, nurses and doctors who would be taking care of us during and after the operations. Starting on this day I was always amazed at the teamwork and communication network this teams of nurses and doctors maintained thru my entire stay. The only minor negative this day was the bowl prep but I assure you, after going thru this entire procedure, you want to be as clean as a whistle. This was also the last day you see solid food for 3-4 days.

Day 0

We were scheduled for surgery in the early afternoon. My wife had her final dialysis treatment in the morning. As scheduled they took us down to the pre-surgical area and hooked me up on an IV. Then the head surgical nurse appeared, like a Goddess, from the operating room. I wasn't even on drugs yet but that is another story. Playing Tomcat pilot under the oxygen mask in the operating room the lights went out...later when I awoke in the recovery room the only thing I could feel was something like a deep bruise on my left side. They had hooked me up to a Foley catheter something during the operation to drain the urine from my bladder. Although I was not initially thrilled about this, it's value became apparent when I found out how much liquid they pushed through me daily.

Day 1

Mid morning I heard one of the Doctors say, "Get him out of bed and walking." I thought, "Walking, I can't even move." Although I was on a pain pump I had not yet realized a hit once every five(5) minutes over half an hour would make-getting in and out of bed significantly easier. The first crawl to the edge of the bed and standing turned out to be an Olympic like accomplishment. By early evening I was shuffling around the ward without to much assistance from the nurses aide. Had a few lovely back spasms but the staff quickly took care of these with medication. Still on a liquid diet, IV and the Foley.

Day 2

During the day I am getting out of bed and shuffling/walking with little to no assistance. I was walking 10-15 laps of the ward every couple of hours. Daytime TV could proably take some of the credit. Near late afternoon the Physical Therapist came by to invite me to drop by her area for some stretching exercises...stretching exercises!!! I just had an operating!!! What if the stitches rip and everything falls out!!! The Doctors, Nurses and Physical Therapist assured me the exercises would help my recovery. After I crossed this mind barrier I found the exercises really helped. Near evening the Doctors suggested that we disconnect the pain pump since I wasn't using it. I didn't realize the machine tracked usage. After some frantic negotiations they let a patient, wiser in the use of pain pumps, keep the pump for another day. Ended the day still on the liquid diet, IV and the Foley.

Day 3

This day can be summed up as a little daytime TV, walking alot of laps around the ward, more stretching exercises and two(2) sessions on the tread mill. Allthough I took a couple of recreational hits from the pain pump during the day I didn't need it and by early evening it was history. The only highlite/lowlite of the day was a high speed ride down the hall by some idiot from the x-ray area. Still on a liquid diet, IV and the Foley.

Day 4

The day included more laps, stretching exercises, tread mill and... finally SOLID food. The IV and Foley are GONE.

Day 5

I'm outta here. They provided me with pain medication in case I needed it. I never did. Although I was glad to be able to leave I must say our relationships with the UCSF medical staff...transplant coordinator, surgeons, doctors, nurses, nurses aides, physical therapist was and continues to be great. They are a seasoned professional team...one of the finest.

Week 2-4

After I got home I began taking 1.5-2.0 mile walks twice a day. The walks were no problem but did require a short nap afterward.

Week 5-6

Returned to work half days. Stamina was still lacking but flexibility had mostly returned.

Week 7+

Returned to work fulltime.

November

Biked down Haleakala Crater on Maui a descent of 10,000 feet in 38 miles. OK, I admit it was mostly down hill.

As for my wife, prior to the operation she would be exhausted after attempting to walk 50-100 yards. Today she walks 2+ miles a day, volunteers in our local schools, crawls the malls and still has energy to burn. The good news is her health and energy level are back to where they were two(2) years ago, the bad news is I was starting to really enjoy the low energy version.

If you have questions about being a kidney donor, please email me at

DBarnekoff@AOL.com.

This story appears on TransWeb by permission of the author, David Barnekoff.

Synopsis

6. "A Small Part Of Me"

(Living Kidney Donation To Brother)
A Kidney Donor's Story
by Ken Anderson

During the process of donating a kidney to my brother, I found that very little information was directed toward the donor, and therefore decided to write a book about my experiences. After long searches at libraries and institutions, I concluded that most information on the subject of donation was directed at the recipient. This book walks the donor through every step of the way. It is easy-to-read, with humor and factual information. Throughout this ordeal, my feelings ranged from a happy high knowing that I would be doing something meaningful in life to a very frightened low not knowing what to expect with all the preoperative tests and ultimately, the operation. My book details what the prospective donor can expect when donating one of his or her healthy kidneys.

It begins with some very fascinating but little known facts about the fragile human kidneys. Chapter two relates when my brother Mike first discovered he had end stage renal failure, a progressive and irreversible condition, and was told that a transplant would be his best long term course of action. Testing revealed that, of eight siblings, I would be the best donor with an almost identical match. Only a twin would have been better! This chapter explains how I made the decision to go ahead with the operation, regardless of the consequences.

Chapter three details all of the preoperative tests and qualifications, explaining all of the procedures that I would soon go through to ensure that I was a good candidate for the transplant. First was a general physical exam with numerous blood tests, then more extensive testing, the MRI, and finally the angiogram. For both of these tests I refused sedatives or mind-altering drugs, so that I would be able to recount in my book the details of each.

Chapter four describes what I remember of surgery day. This chapter also includes an actual transcript of the operation, edited especially for this book by the operating surgeon.

Chapters five through eight detail my postoperative ordeal for the next four days. To summarize, every day I experienced noticeable improvement, and never once did I complain of excessive pain. I touch upon the happy moments as well as the not-so-pleasant times, so that the reader gets a true and accurate account of the experience.

This book was completed nine months after the operation, and I am happy to report that at this writing, just over three years now, all is still well with both Mike and me. My publication is a valuable resource for the prospective kidney donor, as well as for his or her family.

This fifty-page softcover can be read in two to four hours. The book can be ordered by sending a check or money order for $10.00 to:

Ken Anderson
Post Office Box 141
Rehoboth, MA 02769

[The price includes shipping.]

7. "Airman Donates Lung Lobe to Save Cousin"

(U.S. Air Force News)
by Sgt. Theresa A. Dandurand

CHARLESTON AIR FORCE BASE, SC (AFNS Features) – Breathe in deeply, filling your lungs full of air. Now breathe out; relaxing, huh? A simple act most of us don't even think about, we just do it.

But for one young woman from Huntsville, Alabama, breathing is something she doesn't take for granted. And thanks to the generous acts of two of her cousins, she can breathe easier. Literally.

Senior Airman Mike Linder, 437th Maintenance Squadron, and his brother, Paul, recently took part in a relatively new procedure to save the life of their ailing cousin, Staci Barker. Staci, 21, suffers from cystic fibrosis, a genetic and incurable disease, which affects the mucus glands throughout the body, especially the lungs.

Since early July Staci's condition had deteriorated and was in need of a lung transplant. She was on the donation list at two hospitals, but time was running out for her. She was dying and didn't have the several months to wait for an expired donor.

Staci's parents learned of a new procedure called living donor lung lobe transplant. The surgery is only performed at the University Hospital at the campus of University of Southern California by Dr. Vaughn Starnes. Starnes examined Staci's x-rays and determined she was acceptable for the surgery and knew he was racing the clock. Staci was immediately flown to Los Angeles.

She needed two lung lobes and several family members were eager to donate, but after rigorous medical testing, Staci's father, sister and two aunts were rejected. Her mother, Linda, was accepted as a possible donor.

Linder, 26 and his brother Paul, 25, found out about Staci's worsening condition from their mother and immediately volunteered to help.

"I remember Staci's parents pounding her back for 45 minutes as a kid, just to break up the congestion to clear her lungs so she could play," Mike said. "I've seen her get worse through the years."

Both brothers went for preliminary testing at their local hospitals to see if they could be eligible donors, and sent their results to Los Angeles. Paul was accepted as a donor and his company gave him a leave of absence. He flew to Los Angeles from Pittsburgh July 12; the surgery was set for July 14.

Mike went to his first sergeant and explained the situation and asked for permission to help his cousin. After meeting with Col. (Dr.) Mark A. McLaughlin, chief of clinic services at the base clinic, discussing the risks and looking up regulations, Mike received permission from the Air Force. His results looked good and he was put on stand- by, just in case. The day of the surgery was drawing near and Mike continued to call the hospital.

He was going on leave to visit his sister and nephew in Parkersburg and would be away from a phone for several hours. On a hunch, Mike stopped into the Charlotte, NC, airport en route to West Virginia and called the hospital again. His aunt's final tests were not back yet and the transplant coordinator asked if Mike would get in trouble if he came and wasn't used. "I told her it wouldn't be a problem." He caught the last flight to Los Angeles that night.

"As soon as I volunteered to do this, I just had a feeling that I would be one of the donors," Mike said.

Arriving seven hours before the surgery, he was told his aunt was ruled out at the last minute. He was Staci's last chance. He went through more tests to confirm his eligibility. All the tests came back good.

"I went in to see her before the surgery. She tried to speak and began coughing badly," Mike remembers. "But I could see the appreciation in her eyes. That is when I knew I was very lucky to have this opportunity to help her."

With everything a go, Mike and his brother were wheeled into surgery on either side of their cousin at 7 a.m. July 14. Mike donated his right lobar lobe and Paul his left.

Although they only donated lobes of their lungs, the larger lobes from two physically fit young men were like a full set for their petite cousin.

Mike spent seven days in the hospital and his brother nine. Staci spent two more months, but is now home and feeling like a new person, months before schedule.

"She is doing great," Mike said. "She recently flew to University of Alabama to visit her sister and plans to work with children suffering from cystic fibrosis in the future."

"I feel very luck to have a family that came through the way mine did," Staci said. "And I consider Mike and Paul my heroes. I feel like I can plan a future, I can do anything I want to do. And I plan to do it."

Mike and Paul are fully recovered and back to work. Mike recently had a checkup and feels almost 100 percent. Beside an 13-inch scar across his back and side, he doesn't have any problems from the surgery.

"I'm really grateful I got this opportunity to help my cousin," Mike said. "But I not only helped her out, all the people in my shop helped also by covering for me while I was on leave."

Staci's father, Donald Barker, recently wrote Gen. Gary A. Voegler, 437th Airlift Wing commander, and expressed his appreciation. "The Air Force's role in allowing Mike help Staci is also an indication of just how special the Air Force is and an indication of the environment that exists within the Air Force that encourages its members to perform heroic deeds such as this."

Staci's operation was Dr. Starnes' 31st of this kind. Staci still has cystic fibrosis, but it won't affect her new lungs. She said words on a badge worn by a respiratory therapist in Los Angeles explain her feelings best: **"Don't Take Your Organs to Heaven, Heaven Knows We Need Them Here."**

(Dandurand is assigned to 437th AW public affairs)

8. "The Gift I Was Glad To Give"

(Living Kidney Donation By A Wife)
by Vickie Bennett

On April 18th 1996, two days before our fifth anniversary, I gave my husband a kidney.

My husband Tommy was born with polycystic kidney disease, a hereditary disease that reduces and destroys kidney function over time. The doctors told his parents when he was born he wouldn't live six weeks. But Tommy was a fighter and after he came home from the hospital he pretty much lived a normal life.

In the late spring of 1994 Tommy began to feel tired and weak all the time. His muscles ached constantly. On June 15 at the age of 25 he was admitted to the hospital with kidney failure. He had surgery the next day to insert a perm catheter so he could start Hemodialysis.

Everything in our lives changed after this.

Tommy didn't like Hemodialysis. It really takes a lot out of you. His blood pressure would drop and he still felt tired and achy all the time. Plus he had to go to a clinic for four hours, three times a week. He had planned to return to work but he just didn't have the strength. He decided he wanted to try Peritoneal dialysis. This dialysis is not as hard on the patient as Hemodialysis and it can be done at home.

In September of 1994, Tommy had surgery to insert his Tenkhoff catheter. Tommy and I went through a two-week training session and we started doing the dialysis ourselves. We both liked peritoneal dialysis better because we could do it at home while Tommy was sleeping. He also felt much better on this dialysis than he did on hemo and he was able toreturn to work. However, our lives became a routine of work and dialysis (he had to be hooked to a machine for ten hours every night). We had very little time for recreational activities.

When Tommy first started dialysis his cousin had volunteered to give him a kidney, but she developed some health problems and was unable to proceed. In October of 1994,

Tommy and I went and talked with the transplant coordinator at East Carolina University School of Medicine in Greenville, NC. (They are an outstanding group of people.) The coordinator told us all about kidney transplants.

We found out that Tommy's best chance would be if one of his brothers matched. She told us to talk to his brothers and see if they would be willing to be tested. I told her I would be willing to donate if I matched. I think Tommy was really shocked that I would be willing to do this for him. We left the transplant department and immediately went to have blood drawn. We were told that the chances of us matching would be very slim.

Two days later I could stand the suspense no longer, so I called the transplant coordinator. I couldn't believe what she told me, Tommy and I not only had the same blood type but we had 2 out of 6 antigens that matched. (They would do the transplant if just the blood type matched.) When I told Tommy he couldn't believe it. After talking it over with the transplant coordinator, we decided to see if his brothers would be tested. The best chance of success was a living related donor, but if his brothers didn't want to donate, then living unrelated was the next best. One of his brothers was tested but he didn't match. His other brother was only 18 and he was really scared, so he decided not to be tested. Tommy didn't want me to give him one of my kidneys because he was afraid something would happen to me. I don't think he would have let me be tested if he thought we would match. I told him that if it was God's will (and I really felt like it was because we matched), everything would be okay. I couldn't persuade Tommy to accept my kidney so I encouraged him to be put on the transplant waiting list. He agreed and started having all his tests done.

Then in January of 1995, Tommy's mama died. She also had polycystic kidneys and she had been on dialysis for ten years. This really upset Tommy and he put everything on hold. He said he needed some time to deal with everything that had happened before he could decide what he wanted to do.

In June of 1995, Tommy decided he would finish the tests and be put on the waiting list. I again tried to persuade him to let me give him one of my kidneys. He said he would think about it. After several months he finally agreed to let me donate a kidney.

Tommy and I checked into the hospital on the 17th of April 1996. I must say the transplant team were really supportive and understanding. Tommy and I wanted rooms close together and they managed to arrange this even though it was a lot more expensive.

The staff at the hospital was great. We were able to stay with each other as long as we wanted all that day and that night. At 6:30 AM on the 18th they came to take me to the prep room. We passed the staff coming to get Tommy and the lady that was taking me said we would wait for him at the elevator so we could go down together. They even rearranged the order in the prep room so we could be side by side. This was so nice!

When I came to in the recovery room I couldn't believe the surgery was already over. I was only in surgery for about 2 hours. When I got back to my room I was greeted by my family. I was hooked up to a morphine pump, this was really great. Although I never had any extreme pain, this was nice when the pain was uncomfortable. I would wake up every hour and it would seem like I had been asleep for days. At 2:30 PM the nurse came in my room and said Tommy was out of surgery and doing fine. She said they would be bringing him by my room any minute. When they rolled him by we waved and said "I love you" at the same time. I was able to talk to Tommy on the phone later that evening and he thanked me for giving him my kidney.

The next morning the nurse came to give me my bath and told me that Tommy had already had his bath and he was sitting in his chair. After they gave me my bath they helped me into a chair and they rolled me over to see him. He sure did look good. The Kidney had started working immediately and he could already tell a difference. Seeing him feel better was worth any amount of pain I had to go through.

They had me up walking several times that day and I always went to see Tommy. That night my IV was really starting to burn. I asked the nurse if they could take it out and

she said they could but that would mean I wouldn't have the morphine pump. I told her to go ahead and take out the IV because I didn't need the morphine anymore.

Saturday morning when the doctor came by he told me he would let me go home if I wanted to. I wanted to go home but I didn't want to leave Tommy. It was our 5th anniversary and that didn't make it any easier. They told me if I didn't go home they would be moving me to a cheaper room. So, I said if I have to leave Tommy I may as well go home. It was real hard to leave him but I was glad to be home. Tommy joined me 4 days later.

I can't hardly believe the difference in Tommy. He's like a totally different person. He has more energy now than he had when we were dating. Seeing him feel and look better has given me the greatest pleasure. He returned to work five weeks after surgery and he is still doing wonderful.

I returned to work after three and a half weeks and have experienced no problems whatsoever. Everyone keeps asking me if I feel any different. The answer is I don't, I can't tell any difference.

People keep telling me how brave and heroic I was to go through with the surgery, but I don't see it that way. I am so glad that I had the opportunity to do something that could help someone I love. The transplant has changed both of our lives. We are no longer tied down at night. The difference in Tommy continues to amaze me. This is an experience that will always be special for both of us. Tommy says it's the best anniversary present I have ever given him.

Not everyone is able to have a living donor, and there are so many people waiting for organs that thousands die before they become available. I am fortunate because I can see the result of my donation everyday. It's a wonderful feeling to know that because of my gift Tommy has a new life. Even though you may not be able to see the results of your donation, you can still know that what you are doing will improve the lives of many people. By signing a donor card, you can help somebody live a better life!

You can write to Vickie at [bennet@brody.med.ecu.edu]

The Gift Of Life:

9. Feelings Of A Living Kidney Donor

by Steven A. Blakeman

If it was the lottery, I wouldn't have wasted my time. A raffle ticket? I'd prefer to just donate the money. If odds are 50/50, you know who comes out on the losing end? Things like that just never work out for me. Not that I have a bad attitude mind you, I've just always had to do things the old-fashioned way and earn them. So obviously when I was asked to be worked up as a potential donor for a kidney for my sister, I felt safe in the thought that it would look noble, but odds were certainly in my favor that I wouldn't be the lucky one. Especially because there were six siblings (of which I'm the oldest) plus my parents to be evaluated. Well..... this was the day that I should have bought the ticket!

My sister Denise who is 31 years old has been very ill. When she was 15 she almost died before doctors figured out that she had nearly zero kidney function and was immediately placed on dialysis. Her kidneys were the victims of Bright's Disease. We were all tested at that time for a potential donor but because of some blood transfusions she had received, there were antibodies present and the tests showed that there was a good chance of rejection. She was placed on the waiting list and it took about five years for the right one to appear (she is O negative). I remember it well when she got the call and how anxious, yet excited she was. The next day the kidney was hers. Many anxious moments followed and it took three weeks before it produced urine. But that was 11 years ago and the kidney has served her well; but now it was all happening once again. She was very ill and needed either a new kidney or dialysis once again, and she sure didn't want dialysis. I understand that dialysis has changed considerably, but her memories of it were not pleasant.

It was determined that my dad and I were the best candidates and the final testing began. It didn't take long before it was determined that my dad would not work out, as willing as he was to do it, and that I was an excellent match. It seemed that the antibodies that were there 11 years ago were no longer present. The day of reckoning was here. I can honestly say that I felt no pressure from my sister or any of my family, and none at all from

those involved at the hospital. Although concerned, my wife Kathy and my two sons were very supportive. It was clearly my choice.

I had no difficulty in wanting to help my sister, but I had a ton of anxiety. I guess you'd have to know me. I get queasy at just the smell of a doctor's office! I'm probably the worlds biggest baby when it comes to medical procedures. But it didn't take long to realize that the chance to give health and life to another person and be alive to witness it doesn't come along more than once in several lifetimes. I had to do it!

My sister had moved to Sacramento, California several years ago and married a fine man from there. For insurance purposes I had to fly from Ohio to Sacramento for the procedure and within several weeks my wife and I were on our way. I thank God that each day I felt more confidence and determination to do it. After a few last minute tests, the day was here and there was no backing out.

We arrived at Sutter Memorial Hospital in Sacramento early on the morning of surgery. There were both anxiety and excitement in the air along with a few tears as well. It was a day that I'm sure none of us will soon forget. The surgeon, Dr. Ward, had told me that he would take the left kidney and remove it through the front leaving about an 8-inch incision just below the ribs. Surgery would take about 2 hours each and they expected no complications. I was given the choice of several pain control procedures. One was intravenous injections as needed, another was the pain pump in which I could press a button and automatically release pain medication, and another was an epidural catheter which is inserted in the lower back along the spine and is designed to pinpoint the area of pain and channel medication directly to the source. I opted for the latter and am really glad that I did.

Our parents had flown out the night before, and my brother and his wife who also live in Sacramento were there along with my sister's husband Roger. My family prayed with us and asked for God's safety and protection. I had a wave of emotions flooding through my mind as they wheeled me toward the operating room, but overriding all others was an assurance that this was right, and that everything would be OK.

The next thing I remember was waking up in the recovery room. Although in a fog, I knew that I was awake and alive. I had a burning pain in my side which slowly dissolved as the epidural took effect. I was groggy as they returned me to my room but I remember thinking that I was thankful it was over and wondered how my sister was doing. I didn't feel much like talking, but was glad to hear that everything went well. I was told that the kidney started producing urine before my sister was even closed up, and although I didn't feel like smiling outside, I was beaming inside.

I can't really say that the next few days were any fun; in fact, quite the opposite. Although manageable, the pain was difficult and I was not enjoying my first experience with a foley catheter. I suppose it was better than trying to get back and forth to the bathroom. They got me up the next morning to sit in the chair and though it was not easy, I managed and it really wasn't that bad once I got situated. Before the surgery I had concerns about nausea and vomiting, but thankfully it never happened. I had no appetite, and for what they were bringing me to eat, it was a good thing! On the third day I started taking liquids and each day a little more. I found that although it made no sense, they were right; the more that I forced myself to do, the better I felt and the more progress I made. The catheter was removed on the third morning and with some difficulty was able to convince my bladder to work on it's own by the end of the day. Walking the halls became easier and by the fifth day I was ready to be discharged and moved in with my brother. My sister had to stay two additional days, but was doing very well.

After ten more days recovering at my brother's house and enjoying my wife's great care, it was time to make the journey home. We had a reunion with the family the night before we left and my sister was able to come. It was great to see her doing so well. She was able to laugh and not be exhausted. I could see hope in her eyes once again. She was able to begin entertaining her 1 year old son (an accident, but a blessing) for the first time in

quite a while. Although I never said it that night, I was in awe of the miracle of life that was right before me, and that I had been able to be a part of it was amazing.

I must admit that I was still very tender and every bump in the car and plane hurt. A well-placed pillow helped quite a bit. I was glad to be home by the end of that long day and so glad that it was all over. Soon life could return to normal and this would all be a very important memory in the back of our minds.

As I type these lines, it has been five weeks since the day of the transplant. I am gaining more strength every day. The pain is drastically reduced and my stamina is (slowly) returning. I'm able to go back to work part time as a corporate executive and it's good to be back. I'm getting ancy to get back out and do the things I enjoy. I know that very soon I will be. I've had a lot of time to reflect and be thankful for all of the blessings in my life. I'm so glad that I am the one that was able to donate instead of the one who needed the gift.

My sister has called me more in the last few weeks than in all the years since she moved to California. I know she's just trying to show her thankfulness for what I did for her. She keeps trying to say thank you, and I keep telling her that it's not necessary. Sometimes I think that I'm the one that needs to say thank you for the opportunity that I had to be a part of this miracle. It's enough to know that because of my kidney, she has a new lease on life; an opportunity to enjoy her young marriage. The health to care for her young son and be a mother to him. Just to know that each day for her can now be greeted with excitement and enthusiasm. She will have the same opportunity as I to travel and enjoy life, not being tied to a machine. Having the health and strength to take a walk without fatigue, and the list goes on. Yes, I'm the one who needs to be thankful for this priveledge.

Appendix B

Does My Religion Approve Of Organ Donation?

An often-heard question when organ donation is being discussed is: "Does my religion approve?" Recently the New York Regional Transplant Program published the views of major religion on the subject. Here are those positions:

AME & AME ZION (African Methodist Episcopal)

Organ and tissue donation is viewed as an act of neighborly love and charity by these denominations. They encourage all members to support donation as a way of helping others.

AMISH

Approved if there is a definite indication that the health of the recipient would improve, but reluctant if the outcome is questionable.

ASSEMBLY OF GOD

The Church has no official policy in regards to organ and tissue donation. The decision to donate is left up to the individual. Donation is highly supported by the denomination.

BAPTIST

Donation is supported as an act of charity and the church leaves the decision to donate up to the individual.

BRETHREN

The Church of the Brethren's Annual Conference in 1993 wrote a resolution on organ and tissue donation in support and encouragement of donation. They wrote that, "We have the opportunity to help others out of love for Christ, through the donation of organs and tissues."

BUDDHISM

Donation is a matter of individual conscience.

CATHOLICISM

Transplants are acceptable to the Vatican and donation is encouraged as an act of charity.

CHRISTIAN CHURCH (DISCIPLES OF CHRIST)

The Christian Church does not prohibit organ and tissue donation. They feel that it is a personal decision to be made in conjunction with family and medical personnel.

CHRISTIAN SCIENCE

No position, leaving it to the individual.

EPISCOPAL

The Episcopal Church passed a resolution in 1982 that recognizes the life-giving benefits of organ, blood, and tissue donation. All Christians are encouraged to become organ, blood, and tissue donors "as part of their ministry to others in the name of Christ, who gave His life that we may have life in its fullness."

GREEK ORTHODOX

No objection to procedures that contribute to restoration of health, but donation of the entire body for experimentation or research is not consistent with tradition.

GYPSIES (ROMANY)

Gypsies are a people of different ethnic groups without a formalized religion. They share common folk beliefs and tend to be opposed to organ and tissue donation. Their opposition is connected with their beliefs about the afterlife. Traditional belief contends that for one year after death, the soul retraces its steps. Thus, the body must remain intact because the soul maintains its physical shape.

HINDUISM

Donation of organs is a individual decision.

INDEPENDENT CONSERVATIVE EVANGELICAL

Generally, Evangelicals have no opposition to organ and tissue donation. Each church is autonomous and leaves the decision to donate up to the individual.

ISLAM

Moslems approve of donation provided the donors consent in writing in advance and the organs are not stored but are transplanted immediately. The religion of Islam strongly believes in the principle of saving human lives. According to A. Sachedina in his Transplantation Proceedings' article, Islamic Views on Organ Transplantation, "the majority of the Muslim scholars belonging to various schools of Islamic law have invoked the principle of priority of saving human life and have permitted the organ transplant as a necessity to procure that noble end." You can also read an article on donation posted at the Islamic Center of Southern California.

JEHOVAH'S WITNESSES

Donation is a matter of individual conscience with provision that all organs and tissues be completely drained of blood.

JUDAISM

Jews believe that if it is possible to donate an organ to save a life, it is obligatory to do so. Since restoring sight is considered life saving, this includes cornea organ transplantation.

See also "The Ethics of Organ Donation," a talk by Rabbi Moses Tendler.

See also "Ovadia Yosef Rules Kidney Donations Permissable, Even Obligatory"

LUTHERAN

In 1984, the Lutheran Church in America passed a resolution stating that donation contributes to the well-being of humanity and can be "an expression of sacrificial love for a neighbor in need." They call on "members to consider donating organs and to make any necessary family and legal arrangements, including the use of a signed donor card."

MENNONITE

Mennonites have no formal position on donation, but are not opposed to it. They believe the decision to donate is up to the individual and/or their family.

MORMON (CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS)

The Church of Jesus Christ of Latter-Day Saints believes that the decision to donate is an individual one made in conjunction with family, medical personnel, and prayer. They do not oppose donation.

PENTECOSTAL

Pentecostals believe that the decision to donate should be left up to the individual.

PRESBYTERIAN

Presbyterians encourage and support donation. They respect a person's right to make decisions regarding their own body.

PROTESTANTISM

Encourage and endorse organ donation.

QUAKER

Donation or transplants is an individual decision.

SEVENTH-DAY ADVENTIST

Donation and transplantation are strongly encouraged by Seventh-Day Adventists. They have many transplant hospitals, including Loma Linda in California. Loma Linda specializes in pediatric heart transplantation.

SHINTO

In Shinto, the dead body is considered to be impure and dangerous, and thus quite powerful. "In folk belief context, injuring a dead body is a serious crime. . .", according to E. Namihira in his article, "Shinto Concept Concerning the Dead Human Body. " "To this day it is difficult to obtain consent from bereaved families for organ donation or dissection for medical education or pathological anatomy . . . the Japanese regard them all in the sense of injuring a dead body." Families are concerned that they not injure the itai - the relationship between the dead person and the bereaved people.

SOCIETY OF FRIENDS (QUAKERS)

Organ and tissue donation is believed to be an individual decision. The Society of Friends does not have an official position on donation.

UNITARIAN UNIVERSALIST

Organ and tissue donation is widely supported by Unitarian Universalists. They view it as an act of love and selfless giving.

UNITED CHURCH OF CHRIST

The United Church of Christ supports and encourages donation.

UNITED METHODIST

The United Methodist Church issued a policy statement in regards to organ and tissue donation. In it, they state that "The United Methodist Church recognizes the life-giving benefits of organ and tissue donation, and thereby encourages all Christians to become organ and tissue donors by signing and carrying cards or driver's licenses, attesting to their commitment of such organs upon their death, to those in need, as a part of their ministry to others in the name of Christ, who gave His life that we might have life in its fullness."

So while there are variations in specific views, it is clear that major religions of the world do in FACT PERMIT, ALLOW and SUPPORT transplantation and organ donation. I am passing this information to all on the subscribers of the net in hope that it will aid you in your discussions with friends on the importance of organ donations.

Stan Simbal
slats@j51.com

This page was augmented with information provided to TransWeb
by Christine Gallagher of the Rocky Mountain Organ Recovery System.

More information on this subject is available in the publication
"Medical School Curriculum"
from UNOS.

See also a more detailed summary at the Yale Biomedical Gopher

---

Appendix C

Biblical Texts Related To Organ And Tissue Donation[516] & Related Jewish Documents[517]

Tanakh Citations

Genesis 2:20-30	Bone Transplant: "A rib taken from Adam to give life to Eve"
Leviticus 1:7	"Thou shalt love thy neighbor as thyself."
Deuteronomy 30:15-20	"Choose life so that you and your descendants may live."
Psalm 8	"How majestic is your name in all the earth!"
Psalm 41	Images of a healing Lord
Psalm 100	Psalm of praise and thanksgiving
Psalm 107	"Consider the steadfast love of the Lord."
Psalm 111	"I give thanks to the Lord."
Psalm 113	Praises to the Lord
Psalm 116	"O Lord, I pray, save my libel"
Psalm 145	"The Lord is gracious and merciful."
Psalm 147	"Sing to the Lord with thanksgiving."
Ecclesiastes 3:1-17	"For everything there is a season. . ."
Isaiah 35:1-6	"Strengthen the weak hands and make firm the feeble knees." ". . . the eyes of the blind shall be opened. . ."
Isaiah 40:31	"but those who wait for the Lord shall renew their strength... they shall run and not be weary, they shall walk and not faint."
Ezekiel 37	The Valley of Dry Bones: "These bones shall live."

---

[516] This material was provided to TransWeb by Christine Gallagher.

[517] Reprinted from the Compendium on Medical Ethics.

The Jewish Patient's Bill of Rights[518]

The American Hospital Association has adopted a "Patient's Bill of Rights" to clarify what a patient may expect from a hospital administration. Since an observant Jewish patient has additional specific needs, Agudath Israel of America has prepared this "Jewish Patient's Bill of Rights," to assist hospital administrators in properly caring for such patients. We know that hospitals, eager to offer the most effective healing facilities to all of their patients, will welcome this clarification of Jewish needs.

1) The Jewish patient can be admitted to the hospital in an emergency on the Sabbath or a Festival, by making an oral statement of authorization suitably witnessed. No patient may be forced to sign an admission form in violation of religious scruples.
2) The Jewish patient has the right to be served kosher food of proper quality, quantity, and variety to assure meeting his nutritional needs.
3) The Jewish patient has the right to medical attention, and to defer any advanced payment that may normally be required until the close of the Sabbath or Festival.
4) The Jewish patient has the right to engage in observance of Jewish ritual where not medically counterindicated. This includes prayer, provisions for Sabbath candles, Channukah menorah, kosher-prepared wine, Esrog and Lulav, Matzoh, Megillah reading, and Shofar, where appropriate and possible. The hospital should recognize the psychological value of these activities in the same spirit as recreational and other amenities that are offered to the patient.
5) The Jewish patient has the right to refuse out-patient appointments scheduled for the Sabbath and Festivals, the eve of such days, or fast days. This refusal should not prejudice the patient's right to a suitable alternative appointment.
6) The Jewish patient has the right to consult with his own spiritual advisor -- or allow family to do the same when patient is incapable of doing so -- before deciding on procedures involving abortion, sterilization, prostate surgery, contraception, artificial insemination, circumcision, euthanasia, autopsy, withdrawal of life-supporting therapy or appliances, hazardous procedures, or any other procedure posing religious questions. The name of the family rabbi should be entered on hospital admission cards, as a matter of routine, so he may be called upon to serve as consultant when religious problems arise.
7) The Jewish patient has the right to expect the hospital to consider consultation with a spiritual advisor as professional guidance, which can assist immeasurably in the treatment of the patient as a complete entity. The rabbi should be considered an integral part of the healing team.
8) The Jewish patient has the right to psychiatric, psychological, genetic, sex and other counselling by individuals attuned to patterns of behavior which are the norm among observant Jews. The medical team should welcome the participation and advice of the patient's spiritual advisor.
9) The Jewish patient has the right to request such considerations as those listed above for visitors whose presence is deemed supportive of the patient's health and well-being.

---

[518] Compendium on Medical Ethics, pp. 136-138; Prepared by Agudath Israel of America.

The Oath of Asaph the Physician[519]

The oldest Hebrew manuscript is a work ascribed to Asaph Judaeus, an ancient Jewish physician. Little is known about his life. The contents, style and character of the book suggest that Asaph lived between the third and seventh centuries. The book opens with a legendary account of the history of medicine. An account of the composition of the body, of the four elements, of anatomy, physiology and embryology follows; next there is a discussion of the four humors, of food and nutrition; of the special diseases pertaining to the several months, and the diseases of the different organs and their treatment; next, 123 herbs are described with notes on their healing powers. A book of prescriptions and list of antidotes; aphorisms and prognostics of Hippocrates in paraphrase; rules of uroscopy, symptoms of the pulse, and fevers follow. The book closes with an oath similar to Hippocrates.

> And this is the covenant that Asaph, the son of Berachyahu, and Yochanan, the son of Zabda, entered unto with their disciples and enjoined them saying:
>
> Take heed that you kill not any man with a root decoction; do not prepare any potion that may cause a woman who has conceived in adultery to miscarry; and do not lust after beautiful women to commit adultery with them; and do not divulge a man's secret that he has confided unto you; and do not be bribed to do injury and harm and do not harden your heart against the poor and the needy; rather have compassion upon them and heal them. Do not speak of good as evil nor of evil as good. Do not follow the ways of sorcerers to enchant by witchcraft and magic to part a man from his beloved or a woman from the husband of her youth. Do not covet any bribe or reward to assist in sexual misdemeanors. Do not make use of any manner of idol-worship to heal thereby nor trust in its healing powers but despise, detest and hate all its worshippers. And those that trust in it and cause other sot believe in it for it is all worthless and to no avail. They rely on demons and hosts which do not exist and inasmuch as they do not help their lifeless bodies, how can they save the living? And now, trust in the

---

[519] Compendium on Medical Ethics, pp. 139-142; Reprinted from the Annals of Internal Medicine, vol. 63, August 1963, pp. 317-320.

Lord your God, the God of Truth, the living God, for He puts to death and brings to life. He smites and heals, He bestows understanding to man and teaches him to serve. He wounds in righteousness and justice and heals in mercy and loving kindness. No guile is concealed from Him, and nothing is hidden from His sight. He causes healing plants to grow and puts skill to heal in the hearts of sages by His manifold mercies to declare His wonders to the multitudes and to understand all living things for He was their Creator and that part from Him there is no Savior. The peoples trust in their idols that they may save them from their sorrows, for their trust and hope are in the lifeless.

Therefore, it is fitting that you keep yourselves apart from them and hold yourselves aloof from the abomination of their idols and cleave unto the Lord of all flesh. Every living creature is in His hands to kill and to bring to life and none can be delivered from His hands.

Be mindful of Him at all times and seek Him in truth and righteousness all the days of your life and in all that you do and He will help you in all your undertakings and you shall be happy in the eyes of all men. The peoples will neglect their gods and idols and will yearn to serve the Lord as you do, for they will perceive that they have put their trust in mockery and that they have labored in vain -- whey they turn to their god he will not help and will not save. And as for you, be strong and let not your hands slacken for you shall be rewarded for you labors.

The Lord is with you when you are with Him and if you keep His covenant and walk in His statutes and cleave unto them you shall be as saints in the eyes of all flesh, for they will say, 'Happy is the people that is in such a state; happy is the people whose God is the Lord.'

And their disciples answered an declared: 'All that you have admonished us and commanded us we shall do for it is ordained in the Torah and we will carry it out with all our heart and soul and might; we will do and listen and not deviate nor turn to left or right.'

Thereupon, their masters blessed them in the name of the Almighty God, the Lord of heaven and earth, saying: behold the Lord your God, His prophets and His Torah are witnesses unto you; be you God-fearing, do not stray from His commandments; walk in His statutes; do not seek after unjust benefit and do not aid the evil-doer to shed innocent blood. Do not mix a poison for any man or woman to kill his fellow-man, nor disclose their constitution; do not give them to any man nor give any devious advice. Do not cause the shedding of blood by essaying any dangerous experiment in the exercise of medical skill; do not cause a sickness in any man; do not hasten to maim and do not cut the flesh of man by any iron instrument or by branding but first observe twice and thrice and then give your counsel. Guard against haughtiness and conceit. Do not bear a grudge against a sick man, and beware of revengeful acts. Do not set upon those that hate the Lord but keep His ordinances and commandments, walk in His ways that you may find favor in His eyes, and that you may be pure, faithful and upright."

Thus did Asaph and Jochanan admonish and adjure their disciples.

The Physician's Prayer
Attributed to Moses Maimonides[520]

The Physician's Prayer attributed to Moses Maimonides (1135-1204) is a lofty and beautiful prayer which first appeared in print in a German periodical in 1783. Since then many versions in many languages have been published. Much heated debate exists concerning the true authorship of the prayer. A critical, chronological analysis of the controversy was published by Dr. Fred Rosner.[521] Rosner concludes that the evidence overwhelmingly favors the concept that the Physician's Prayer attributed to Maimonides is a spurious work, not written by Maimonides but composed by an eighteenth-century writer, probably Marcus Herz. Absolute proof that this is so is, however, lacking and may never be discovered.

The Physician's Prayer attributed to Moses Maimonides contains the moral and ethical standards by which a physician should conduct his professional life. The daily recitation of this prayer serves to remind the physician of these standards, which have been set up for him and which he should attempt to live up to. Physicians should constantly carry with them the highest code of medical philanthropy and professional ethics. Such noble philosophy and high aspirations of the profession are embodied in the Physician's Prayer.

There follows below the English version of the "Daily Prayer of a Physician" by Dr. Harry Friedenwald.

DAILY PRAYER OF A PHYSICIAN

> Almighty God, Thou hast created the human body with infinite wisdom. Ten thousand times ten thousand organs hast Thou combined in it that act unceasingly and harmoniously to preserve the whole in all its beauty – the body which is the envelope of the immortal soul. They are ever acting in perfect order, agreement and accord. Yet, when the frailty of matter or

---

[520] Compendium on Medical Ethics, pp. 143-146; Reprinted from the <u>Bulletin of the Johns Hopkins Hospital</u>, 1917, 28:256-261.

[521] <u>Bulletin of the History of Medicine</u>, vol. 41, September-October 1967, pp. 440-454.

the unbridling of passions deranges this order or interrupts this accord, then forces clash and the body crumbles into the primal dust from which it came. Thou sendest to man diseases as benefit messengers to foretell approaching danger and to urge him to avert it.

Thou hast blest Thine earth, Thy rivers and Thy mountains with healing substances; they enable Thy creatures to alleviate their sufferings and to heal their illness. Thou hast endowed man with the wisdom to relieve the suffering of his brother, to recognize his disorders, to extract the healing substances, to discover their powers and to prepare and to apply them to suite every ill. In Thine Eternal Providence Thou hast chosen me to watch over the life and health of Thy creatures. I am now about to apply myself to the duties of my profession. Support me, Almighty God, in these great labors that they may benefit mankind, for without Thy help not even the least thing will succeed.

Inspire me with love for Thy art and for Thy creatures. Do not allow thirst for profit, ambition for renown and admiration, to interfere with my profession, for these are the enemies of truth and of love for mankind and they can lead astray in the great task of attending to the welfare of Thy creatures. Preserve the strength of my body and of my soul that they ever be ready to cheerfully help and support rich and poor, good and bad, enemy as well as friend. In the sufferer let me see only the human being. Illuminate my mind that it recognize what presents itself and that it may comprehend what it absent or hidden. Let it not fail to see what is visible, but do not permit it to arrogate to itself the power to see what cannot be seem, for delicate and indefinite are the bounds of the great art of caring for the lives and health of Thy creatures. Let me never be absent minded. May no strange thoughts divert my attention at the bedside of the sick, or disturb my mind in its silent labors, for great and sacred are the thoughtful deliberations required to preserve the lives and health of Thy creatures.

Grant that my patients have confidence in me and my art and follow my directions and my counsel. Remove from their midst all charlatans and the whole host of officious relatives and know-all nurses, cruel people who arrogantly frustrate the wisest purposes of our art and often lead Thy creatures to their death.

Should those who are wiser than I wish to improve and instruct me, let my soul gratefully follow their guidance; for vast is the extent of our art. Should conceited fools, however, censure me, then let love for my profession steer me against them, so that I remain steadfast without regard for age, for reputation, or for honor, because surrender would bring to thy creatures sickness and death.

Imbue my soul with gentleness and calmness when older colleagues, proud of their age, wish to displace me or to scorn me or disdainfully to teach me. May even this be of advantage to me, for they know many things of which I am ignorant, but let not their arrogance give me pain. For they are old and old age is not master of the passions. I also hope to attain old age upon this earth, before Thee, Almighty God!

Let me be contented in everything except in the great science of my profession. Never allow the thought to arise in me that I have attained to sufficient knowledge, but vouchsafe to me the strength, the leisure and the ambition ever to extend my knowledge. For art is great, but the mind of man is ever expanding.

Almighty God! Thou hast chosen me in thy mercy to watch over the life and death of Thy creatures. I now apply myself to my profession. Support me in this great task so that it may benefit mankind, for without Thy help not even the least thing will succeed.

Appendix D

Jewish Bioethics Centers & Sources For Information On Jewish Bioethics

Union of American Hebrew Congregations (Reform)
Committee on Bio-Ethics
117 South 17th Street, Suite 2111
Philadelphia, PA 19103
Contact: Rabbi Richard Address
(215) 563-8183

Reconstructionist Rabbinical Association
Bio-Ethics Committee
Church Road and Greenwood Avenue
Wyncote, PA 19095
Contact: Yael Shuman
(215) 576-5210

Rabbinical Assembly (Conservative)
Jewish Theological Seminary
New York, New York
(212)-678-8060

Rabbi Harlan Wechsler
Professor of Bioethics
Jewish Theological Seminary
United Jewish Appeal-Federation Medical Ethics Committee
New York, New York
(212)-678-8060

United Synagogue, Public Relations Office
New York, New York
(212) 260-8450 x2601

Rabbinical Council of America (Orthodox)
Commission on Medical Ethics
278 Seventh Avenue
New York, New York 10001
(212) 807-7888

Dr. Nancy Neveloff-Dubler
Professor of Bioethics
Einstein Medical School
Yeshiva University
New York, New York

National Institute of Judaism and Medicine
(888) 223-NIJM

National Institute for Jewish Hospice
8723 Alden Drive
Los Angeles, CA 90048
(800) 446-4448

Information Centre for Jewish Law (Halacha) and Bioethics
Rabbi Shmuel Lerman, Institute for Settlement Rabbis
Yeshivat Nir, Kiryat Arba, Israel

A team of twelve recognized and experienced rabbis who are researching Jewish Law and Bioethics, under the direction of Rabbi Yitshak Rodrig, Head of the Yeshiva. In addition, Dr. Frank Leavitt, of Ben-Gurion University, is acting as our voluntary advisor on international, cross cultural bioethics.

Questions on Halacha (Jewish Law) will be answered after consultation with distinguished and recognized orthodox rabbis in Israel. Questions may be sent by post or by fax (+972-2-961-778, to the attention of Rabbi Shmuel Lerman) in Hebrew, English, French, German or Spanish. Electronic mail accress is not yet available. This service is without charge, but donations to cover postage or fax cost will not be refused.

Appendix E

Internet Sources For Jewish Bioethical Material

"Judaism and Medicine"[522]
Albert Einstein School of Medicine in New York
Orthodox Synagogue
Contains links to:
The Torah Physician
Jewish AIDS Network
UAHC Committee on Bioethics
and much much more....
<http://shamash.org/shuls/einstein/medlinks.html>

The Institute for Jewish Medical Ethics[523]
http://www.hia.com/hi

Ethics/Bioethics site[524]
http://ncgr.org/elsi/elsi.tc4b.html

Tay Sachs Disease[525]
http://www.ncgr.org/elsi.elsi.tc10f.html

---

[522] National Association of Jewish Chaplains Newsletter, Volume 11, Number 4, September 1997.

[523] Irving Green, Judaism on the Web. MIS Press New York, New York: 1997 p.344

[524] Ibid. This site is a reading list which includes a number of articles on Jewish points of view regarding bioethics.

[525] Ibid.

Pain Relief and the Risk of Suicide: A Jewish Perspective[526]
http://www.sfhs.edu/critint/v5_n2/mackler.htm

The Jewish Bulletin Online[527]
http://www.jewish.com

Assisted Suicide Case Opens Debate on Jewish Stance[528]
http://www.jewish.com/bk950721/usstance.htm

Experts Debate the Ethical Dilemmas of Managed Care[529]
http://www.jewish.com/bk960301/sfameman.htm

Nursing Ethics in Israel: Dilemma in Neonate Intensive Care[530]
http://www.biol.tsukuba.ac.jp/~macer/EEIN41E.html

Duty and Healing: Foundations of a Jewish Bioethic[531]
http://www.mcgill.ca/CTRG/bfreed/

Briefs: Information Centre for Jewish Law (Halacha) and Bioethics[532]
http://www.biol.tsukuba.ac.jp/~macer/EJ52K.html

---

[526] Ibid., p.345

[527] Ibid.

[528] Ibid.

[529] Ibid., p.346

[530] Ibid. Contains an article from the Eubios Ethics Institute Newsletter from January, 1994.

[531] Ibid., p.347 This is an on-line book by Dr. Benjamin Freedman using traditional Jewish sources to explore some of the more common ethical issues encountered in hospitals today.

[532] Ibid. The International Information Centre for Jewish Law on biomedical ethics was established by the Institute for Settlement Rabbis, Yeshivat Nir, Kiryat Arba, Israel.

UAHC Committee on Bio-Ethics[533]

http://server.huc.edu/rjbackup/uahc/bioethic.html

Ethics of Cardiac Surgery[534]

http://yu1.yu.edu/riets/torah/medethic/medical1htm

The Ethics of Organ Donation[535]

http://www.med.umich.edu/trans/transweb/donation_folder/rabbi_tendler.html

Symposium on Ethical Dilemmas regarding HIV Patients and Care Givers[536]

http://law.touro.edu/institutes/jewishlaw/april95/part1.html

---

[533] Ibid. p.348

[534] Ibid.

[535] Ibid.

[536] Ibid. p.349

Appendix F

Bioethics Centers & Sources For Information On Bioethics

United States Government
Department of Health and Human Services
(202) 619-0257

United States Government
Department of Health and Human Services
Division of Trasnsplantation,
Judith Braslow
(301) 443-7577

UNOS General Information
(888) TX-INFO-1
(800) 355-SHARE

UNOS Public Information Office
(804) 330-8500

Coalition on Organ Donation
(888) 90-SHARE

Darryl Macer, Ph.D., Eubios Ethics Institute
Institute of Biological Sciences,
University of Tsukuba,
Tsukuba Science City, 305, JAPAN
Eubios Ethics Institute Newsletter 3 (1993), 13-14, 27.

There appear to be an ever increasing number of bioethics centres being established in various parts of the world, and it would be useful to have a directory of these. Anyone with information please send news of bioethics centres, and these will be listed in the newsletter. Many thanks to the L.J. Goody Bioethics Centre and University of Toronto Centre for Bioethics for sending lists in response to the announcement last issue.

In each issue different centres will be listed - to add to the list in this issue, addresses only due to space. Please note that this issue does not have room for all the US centres, so these will be listed in the next issue. In past issues of the newsletter addresses of some have already been given, especially of those which publish newsletters. For further descriptions of bioethics centres see Ethically Speaking 1(1-3), which describes institutional members of the Association for Practical & Professional Ethics, Indiana University, 410N. Park Ave, Bloomington, IN 47405, USA.

A new list, from end of July 1993, from the Kennedy Institute of Ethics is available for US$35 prepaid in North America or US$40 elsewhere, by ordering: International Directory of Bioethics Organizations, Anita L. Nolen & Mary. C. Coutts, eds., Bioethics Resource Series, Volume 1. Washington, DC: Kennedy Institute of Ethics; Georgetown University; Fax +1-202-687-6770. They idenitfy 278 organizations in 42 countries, 150 within the USA, lisiting useful feautres of them and educational courses. It is a much welcome addition to the UNESCO list published earlier in the year, and both lists cover most of the world bioethics organizations.

A new French language directory of 1000 individuals and centres in Europe in bioethics is being advertised, Gerard Huber, ed., Annuaire European de Bioethique, Association Descartes, price 350FF. from: 1, rue Descartes, 75231 Paris Cedex 05, France.

Bioethics Centres

AUSTRALIA

Applied Ethics and Human Change, Queensland University of Technology,
P.O. Box 284, Zillmere, Qld 4034

Australian Health Ethics Committee,
GPO Box 9848, Canberra, ACT 2601, AUSTRALIA

Centre for Research in Ethics and Health Issues, (Institute of Catholic Education),
P.O. Box 146, East Melbourne, Vic 3002

Centre for Philosophy and Public Issues, University of Melbourne,
Parkville, Victoria 3052

Christian Centre for Bioethics, Sydney Adventist Hospital,
185 Fox Valley Road, Wahroonga, NSW 2076

The Dietrich Bonhoeffer International Institute for Bioethical Studies Inc.,
G.P.O. Box 588, Adelaide, SA 5001

Flinders Medical Centre - Bioethics Unit,
Flinders Drive, Bedford Park, SA 5042

John Plunkett Centre for Ethics, St Vincent's Hospital,
Victoria Street, Darlinghurst, NSW 2010

Kingswood Centre for Applied Ethics, (University of Western Australia),
c/o Kingswood College, Crawley WA 6009

Laurdel Bioethics Foundation,
P.O.Box 539, Burwood, NSW 2134

The L.J. Goody Bioethics Centre,
39 Jugan Street, Glendalough, WA 6016

Monash University - Centre for Human Bioethics,
Clayton, Vic 3168

Provincial Bioethics Centre for the Queensland Catholic Dioceses,
P.O. Box 343, South Brisbane, Qld 4101

St. Vincent's Hospital - Bioethics Department,
41 Victoria Parade, Fitzroy, Vic 3065

Southern Cross Bioethics Institute, "The Pines",
336 Marion Road, Plympton North, SA 5037

BELGIUM

Centre d'etudes bioethiques,
51 Promenade de l'Alma, Boite UCL 43/4534, B-1200 Bruxelles

CANADA

Center for Bioethics, Clinical Research Institute of Montreal,
110 Pine Ave West, Montreal, QC H2W 1R7

Group de recherche en bioethique de l'Universite de Montreal,
Guy Durand, Directeur, Faculte de theologie,
C.P. 6128, Succursale "A", Montreal, QC H3C 3J7

Groupe de recherche en ethique medicale de Laval,
Facultie de philosophie, Universite Laval, Quebec, QC G1K 7P4

Groupe de recherche ETHOS de l'Universite du Quebec a Rimouski,
300 ave des Ursulines, Rimouski, QC G5L 3A1

Saint Paul University Centre for Techno-Ethics,
223 Main St, Ottawa, ON K1S 1C4

University of Alberta Division of Bioethics,
A.N.R. 222, 8220 - 114 St., Edmonton, AB T6G 2J3

University of British Columbia, Centre for Applied Ethics,
1866 Main Mall, Room E-165, Vancouver, BC V6T 1Z1

University of Calgary Medical Bioethics,
3330 Hospital Drive N.W., Calgary, AB T2N 4N1

University of Manitoba, Centre for Professional and Applied Ethics,
University College, 500 Dysart Rd., Winnipeg, MN R3T 2M8

McGill Centre for Medicine, Ethics & Law,
2020 University, 24th Floor, Montreal, Quebec H3A2A5

Le Genethiq in Canada is Groupe de recherche en genetique et ethique du Quebec
(Le GENETHIQ), Collège de Chicoutimi,
534 Jacques-Cartier Est, Chicoutimi, Quebec G7H 1Z6

St. Joseph's College Catholic Bioethics Centre,
Suite 520, 8409 - 112 Street, Edmonton, Alberta T6G 1K6

University of Toronto Centre for Bioethics, Tanz Neuroscience Building,
6 Queen's Park Crescent West, Toronto, Ontario, M5S 1A8

Westminster Institute for Ethics and Human Values,
361 Windermere Road, London, Ontario, N6G 2K3

DENMARK

Akademie fur Ethik in der Medizin, Institut fur Geschichite der Medizin,
Humboltalle 11, D-3400 Gottingen

FRANCE

Droit et Ethique de la Sante,
95 Boulevard Pinel, 69677 Bron Cedex

GERMANY

Zentrum Medizinische Ethik, Ruhr Universitaet,
Postfach 102148, Bochum 4630

HUNGARY

Medical University of Pecs - Bioethics Unit (Dr Bela Blasszauer),
Pecs, Szigeti u 12, 7624 Hungary

Semmelweis University of Medicine, Institute of Social Science, Unit of Medical Ethics,
Budapest VIII, Nayyvard ter 4, Budapest POB 370 H-1445

ISRAEL

Lord Immanuel Jakobovits Centre for Jewish Medical Ethics,
The Faculty of Health Sciences, Ben Gurion Univeristy of the Negev,
P.O.B. 653, Beer-Sheva 84105 Israel

The Schlesinger Institute for Medical-Halachic Research, Sharre Zedek Medical Center,
P.O. Box 3235, Jerusalem 91031 Israel

ITALY

Instituto Siciliano di Bioetica, Facolta Teologica di Sicilia,
90134 Palermo, Corso Vittorio Emanuele, 463, Sicilia

JAPAN

Eubios Ethics Institute, P.O. Box 125, Tsukuba Science City, Ibaraki 305

Institute of Medical Humanities, Kitasato University School of Medicine,
1-15-1 Kitasato, Sagamihara, Kanagawa 228

Institute on Public Issues Relating to Health Care and Medicine,
Fujimo-cho 32-3, Hirosaki 036

International Bioethics Research Center, Kyoto Women's University,
Higashiyamachi, Kyoto 605

Laboratory of Social Life Science, Mitsubishi Kasei Institute of Life Sciences,
1-1 Minamiooya, Machida-shi, Tokyo 194

Waseda University - Bioethics Program, Advanced Research Center for Human Sciences,
2-579-15 Mikashima, Tokorozawa-shi, Saitama 359

The NETHERLANDS

Dept. of Ethics, Philosophy and History of Medicine, Catholic University of Nijmegen,
Postbox 9101, 6500 HB Nijmegen

NEW ZEALAND

Eubios Ethics Institute, 31 Colwyn Street, Christchurch 5

Otago University Bioethics Research Centre, P.O. Box 913, Dunedin

NORWAY

Center for Medical Ethics, Gaustadalleen 21, 0371 Oslo

National Committee for Research Ethics in the Social Sciences and the Humanties,
The Norwegian Research Council for Science and the Humanities,
Gaustadalleen 21, N-0371 Oslo

POLAND

Dept. of Ethics, Institute of Philosophy, Jagiellonian University,
ul. Grodjka 52, 31-044 Krakow

SOUTH AFRICA

Bioethics Centre, Dept. of Medicine,
University of Cape Town, Cape Town Observatory 7925

SWEDEN

Ersta Institute for Health Care Ethics, Box 4619, S-116 91 Stockholm

SWITZERLAND

Fondation Louis Jeantet De Medecine, P.O. Box 277, CH-1211 Geneva 17-Malagnou

UK

Centre for Medical Law & Ethics, King's College, University of London,
The Strand, London

USA

(See Kennedy Institute list!)

Center for Biomedical Ethics,
BOX 33 UMHC, 420 Delaware Street SE, Minneapolis, MN 55455

Center for Biotechnology Policy & Ethics, Texas A&M University,
329 Dulie Bell Building, College Station, TX 77843

Hastings Center, 255 Elm Road, Briarcliff Manor, NY 10510

Kennedy Institute of Applied Ethics, Georgetown University,
Poulton Hall, 1437 37th St., N.W., Washington, DC 20057

Appendix G

Internet Sources for Bioethics Material

UNOS Web Address
<www.unos.org>

The AMA Home Page
contains links to:
Regional, State and County Medical Societies and Organizations
National Specialty Societies and Health Related Organizations
International Medical Links
U.S. Government Sites
Scientific Journals
Medical Indicies and Lists on the Web
Condition and Illness Related Resources
Internet search engine forms

New England Journal of Medicine Home Page
contains links to:
Biotechnology Information
Centers for Disease Control
Countway Library of Medicine
Genome Database
Journal Watch
MEDLINE Searching
MMWR
National Institutes of Health
National Library of Medicine
World Health Organization

COUNTWAY Plus

system for searching biomedical literature
<count51.med.harvard.edu/ovid>
contains easy interface to:
MEDLINE
CORE BIOMEDICAL COLLECTION
CANCERLIT
HealthSTAR
CURRENT CONTENTS - LIFE SCIENCES

Many of these sites (and more) are cross-referenced in
the Topical News sections of Eubios Bioethics and Biotechnology News,
from the Eubios Ethics Institute.
(last updated April 1997)
The Eubios Ethics Institute
is on the world wide web of the Internet:
http://www.biol.tsukuba.ac.jp/~macer/index.html

American Bar Association Health Rights

Bioetica Web (Spanish)

American Bioethics Network

Bioethicsline

Bioethics Discussion Pages

Canadian Bioethics Report

Center for Biotechnology Policy and Ethics (Texas A&M)

Columbia University HealthWise

Danish Council of Ethics

Eubios Bioethics and Biotechnology News

Eubios Ethics Institute

Eubios Ethics Institute - European Mirror Site

**European Federation of Biotechnology (EFB) -
Task Group on Public Perceptions of Biotechnology**

ELSI bibliography

Genethics (Montreal)

GeneLetter (Shriver Center, MA)

**Genetics and Public Issues
(National Institute of Health)**

Ifgene information

US National Reference Center for Bioethics Literature

Syllabus-exchange - Kennedy Institute of Ethics, Washington, DC

International Association of Bioethics

Iowa State University Bioethics Program

Med Web Bioethics Sources

Center for Ethics in the Sciences and Humanities, University of Tuebingen

Medical College of Wisconsin Bioethics Online Service

**Michigan State University Interdisciplinary Program -
on Health and the Humanities**

Internet Resource Site for Religious and Moral Studies, Lancaster, UK

Ruhr-University Bochum, Germany, Center for Medical Ethics

UNESCO International Bioethics Committee

**US President's Advisory Committee on Human Radiation Experiments -
(list of available files)**

**DOE Office of Human Radiation Experiments -
(includes declassified US goverment documents)**

<u>OTHER CENTERS AND SOURCES</u>

Access Excellence - bioethics (Genentech)

Assisted Reproduction Abstracts, New Zealand

**Biosis - Science Museum, London -
Also Nuffield Council on Bioethics**

Biotech BiblioNet

UK National Centre for Biotechnology Education

Centre for Applied Ethics, Hong Kong Baptist University

Center for Clinical Ethics and Humanities in Health Care, Buffalo, NY

**Ethical, Legal, and Social Issues in Science Project,
Lawrence Berkeley Laboratory**

Centre for Research Ethics, Gothenburg, Sweden

The Church of Scotland Society, Religion and Technology Project

Geneweb (Bristol)

Institute for Jewish Medical Ethics, San Francisco

The Institute for Global Ethics

Japan Environment Monitor

University of Pennsylvania Medical Center Bioethics Center

The Consortium Ethics Program - University of Pittsburgh Center for Medical Ethics & Hospital Council of Western Pennsylvania

The Race Gallery

RAFI homepage

University of Utah Bioethics gopher

MacLean Center for Clinical Medical Ethics, University of Chicago

ON-LINE JOURNAL ABSTRACTS, CONTENTS LISTS

Academic Press Journals

American Scientist

Bioline Journals

Biomedical Ethics: Newsletter of the European Network for Biomedical Ethics

Blackwell Journals

British Medical Journal

Canadian Bioethics Report

Canadian Medical Association Journal

Center for Biotechnology Policy and Ethics Newsletter (Texas A&M)

Chapman Hall Journals

Christians in Science

Human Genome News

Immunology Today

Journal of the American Medical Association

Nature Biotechnology

New England Journal of Medicine

New Scientist

Newsletter of the European Network for Biomedical Ethics

Science

Science and Christian Belief

(Please send further ideas and sites to
The Eubios Ethics Institute,
<Macer@sakura.cc.tsukuba.ac.jp >)

BIBLIOGRAPHY

תורה

משנה, c. 200 CE.

גמרא, c. 300 CE.

תלמוד בבלי, c. 500 CE.

תלמוד ירושלמי, c. 500 CE.

תוספות

מכילתא

שו"ת רב חי גאון

אגודת אזוב

אחיעזר

ארץ ישראל בספרות התשובות

בואן

היום יום

לאור ההלכה

מנחת חינוך

משנת חכמים

ספר הערכים חב"ד - אהבת ישראל

פני יהושע

פתחי תשובה

שבט מיהודה

שו"ת יחוה דעת

שו"ת יעקב

Rabbi Avraham Abele, מגן אברהם, Poland, 17th century.

Abraham S. Abraham, M.D., F.R.C.P., Comprehensive Guide To Medical Halachah, (Modified Edition of Medical Halachah for Everyone) Jerusalem, Israel: Feldheim Press, Ltd., 1990.

Abraham S. Abraham, M.D., F.R.C.P., לב אברהם, Jerusalem: Two Volumes, 1977.

Abraham S. Abraham, M.D., F.R.C.P., נשמת אברהם, Jerusalem: Five Volumes, 1984, 1986, 1988, 1992, 1995.

Richard F. Address, Director, "Organ Donation And Transplantation," Program Guide IX, Union of American Hebrew Congregations – Committee on Bio-ethics, United States Department of Health and Human Services – Health Resources and Services Administration, Spring 1997.

Rabbi Isaac Alfasi, פסקי הרי"ף, 11th century.

Nahum Amsel, Jewish Encyclopedia Of Moral And Ethical Issues, Northvale, New Jersey: Jason Aronson, 1994.

Rabbi Jacob Ben Asher, טור, 13th century.

Rabbi Betzallel Ashkenazi, שיטה מקובצת, 16th century.

Rabbi Shlomo Zalman Auerbach, Editor, ספר האשכול.

Tom L. Beauchamp, LeRoy Walters, Contemporary Issues In Bioethics, Third Edition, Belmont, California: Wadsworth Publishing Company, 1982

Tom L. Beauchamp, James F. Childress, Principles Of Biomedical Ethics, Fourth Edition, New York: Oxford Press, 1994.

Rabbi Zvi Y. Berlin, העמק השאלה.

Claude Bernard, An Introduction To The Study Of Experimental Medicine, New York: Dover Publications, Inc., 1957.

Rabbi J. David Bleich, Ph.D., Contemporary Halachic Problems, Hoboken, New Jersey: Ktav Publishing House, New York: Yeshiva University Press, 1977, 1983, 1989.

Rabbi J. David Bleich, Ph.D., Dr. Fred Rosner, M.D., F.A.C.P., Jewish Bioethics: Essays, New York: Hebrew Publishing Co., 1979, 1985.

Rabbi S. Braun, שערים המצוינים בהלכה.

Clive O. Callender, "Legal And Ethical Issues Surrounding Transplantation: The Transplant Team Perspective," In D.H. Cowan, M.D., J.D., J.A. Kantorowitz, J.D., J. Moskowitz, Ph.D., P.H. Rheinstein, M.D., J.D., Editors, "Human Organ Transplantation: Societal, Medical-Legal, Regulatory And Reimbursement Issues," Ann Arbor, Michigan: Health Administration Press, 1987, pp. 42-52.

Charles F. Chapman, Medical Dictionary For The Nonprofessional, Hauppauge, New York: Barron's, 1984.

Rabbi Joshua Valk [Falk] Cohen, ספר מאירת עינים.

Committee On Jewish Law And Standards, Rabbinic Assembly, Jewish Theological Seminary, New York, New York.

J. Craven, G.M. Rodin, Editors, Psychiatric Aspects Of Organ Transplantation, New York: Oxford University Press, 1992.

Charles E. Curran, Issues In Sexual And Medical Ethics, Notre Dame, Indiana: University of Notre Dame Press, 1978.

Barry D. Cytron, Earl Schwartz, Stephen Garfinkel, Series Editor, When Life Is In The Balance, New York: United Synagogue of Conservative Judaism Department of Youth Activities, 1986.

Elliot N. Dorff, Choose Life: A Jewish Perspective On Medical Ethics, Los Angeles: University of Judaism, 1985.

Elliot N. Dorff, Louis E. Newman, Contemporary Jewish Ethics And Morality, New York: Oxford University Press, Inc., 1995.

Elliot N. Dorff, Jewish Law And Modern Ideology, New York: United Synagogue Commission on Jewish Education, 1970.

Elliot N. Dorff, "Jewish Perspective On Organ And Tissue Transplantation," Coalition for the Advancement of Jewish Education (CAJE), November 21, 1996, Idem, "Organ And Tissue Transplantation From A Jewish Perspective," (©, 1995), A Time To Be Born, Philadelphia: Jewish Publication Society, Expected date of publication – August 1998.

Nancy Dubler, David Nimmons, Ethics On Call: Taking Charge Of Life And Death Choices In Today's Health Care System, New York: Vintage Books, Random House, Inc., May 1993.

Deanne Durrett, Organ Transplants, San Diego, California: Lucent Books, 1993.

Education And Public Relations Department, United Network For Organ Sharing (UNOS).

Rabbi Jacob Emden, מגדל אוז באבן בוחן.

Rabbi Jacob Emdin, מור וקציעה.

Rabbi Joseph Engel, גליוני הש"ס, New York: 1949.

Rabbi Yechiel Michael Ben Aharon Halevi Epstein, ערוך השלחן.

Rabbi Moshe Feinstein, שו"ת אגרות משה.

Rabbi Dr. David M. Feldman, Fred Rosner, M.D., Compendium On Medical Ethics: Jewish Moral, Ethical, And Religious Principles In Medical Practice, New York: Federation of Jewish Philanthropies of New York, Inc., 1984.

Rabbi David M. Feldman, D.H.L., Health And Medicine In The Jewish Tradition, New York: Crossroad Publishing Company, 1986.

Rabbi David M. Feldman, D.H.L., Birth Control In Jewish Law: Marital Relations, Contraception, And Abortion As Set Forth In The Classic Texts Of Jewish Law, New York: New York University Press, 1968.

Solomon B. Freehof, Contemporary Reform Responsa, Cincinnati, Ohio: Hebrew Union College Press, 1974.

Solomon B. Freehof, Current Reform Responsa, Cincinnati, Ohio: Hebrew Union College Press, 1969.

Solomon B. Freehof, Modern Reform Responsa, Cincinnati, Ohio: Hebrew Union College Press, 1971.

Solomon B. Freehof, New Reform Responsa, Cincinnati, Ohio: Hebrew Union College Press, 1981.

Solomon B. Freehof, Reform Responsa, Cincinnati, Ohio: Hebrew Union College Press, 1960.

Solomon B. Freehof, Reform Responsa For Our Time, Cincinnati, Ohio: Hebrew Union College Press, 1977.

Solomon B. Freehof, Responsa Literature, Philadelphia: Jewish Publication Society of America, 1955.

Solomon B. Freehof, Today's Reform Responsa, Cincinnati, Ohio: Hebrew Union College Press, 1990.

Solomon B. Freehof, Treasury Of Responsa, Philadelphia: Jewish Publication Society of America, 1963.

Sigrid Fry-Revere, J.D., Ph.D., The Accountability Of Bioethics Committees And Consultants, Frederick, Maryland: URG Publishing, 1992.

S. Garella, M.D., W.D. Mattern, M.D., "Kidney Disease: A Guide For Patients And Their Families," Rockville, Maryland: The American Kidney Fund Public Information Series, 1987.

Marc A. Gellman, Theological Voices In Medical Ethics, Grand Rapids, Michigan: William B. Eerdmans Publishing Co., 1993.

Rabbi Yehuda Gershuni, כָּל צופיך.

Jonathan Glover, Causing Death And Saving Lives, New York: Penguin Books, 1990.

Edward Goldman, Editor, Jewish Law Association Studies IX: The London 1996 Conference Volume, London, England: 1998.

Victor Grassian, Moral Reasoning, Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1992.

Chandi Greene, Assistant Director of Communications, Hoxworth Blood Center, Cincinnati.

Rabbi Yehudah HaChasid, סֵפֶר חֲסִידִים, Germany, 12th century.

Rabbi Meir HaCohen, הַגָּהוֹת מַיְמוֹנִיּוֹת, Germany, 13th century.

Rabbi Yisrael Meir HaCohen, מִשְׁנָה בְּרוּרָה, 20th century.

Harrison, Principles of Internal Medicine, Tenth Edition, 1983.

Basil F. Herring, Jewish Ethics And Halakhah For Our Times, Hoboken, New Jersey: Ktav Publishing House, New York: Yeshiva University Press, 1984.

Basil F. Herring, Jewish Ethics And Halakhah For Our Times II, Hoboken, New Jersey: Ktav Publishing House, New York: Yeshiva University Press, 1989.

Stephen L. Isaacs, Ava C. Swartz, The Consumer's Legal Guide To Today's Health Care: Your Medical Rights And How To Assert Them, New York: Houghton Mifflin Company, 1992.

Israel News Service, Israel Consulate, New York, New York.

Walter Jacob, Editor, American Reform Responsa, New York: Central Conference of American Rabbis, 1983.

Walter Jacob, Editor, Contemporary American Reform Responsa, New York: Central Conference of American Rabbis, 1983.

Walter Jacob, Editor, Contemporary Reform Responsa, Cincinnati, Ohio: Hebrew Union College Press, 1987.

Walter Jacob, Editor, Liberal Judaism And Halakhah, Pittsburgh: Rodef Shalom Press, 1988.

Walter Jacob, Editor, Questions And Reform Jewish Answers, Cincinnati, Ohio: Hebrew Union College Press, 1992.

Walter Jacob, Moshe Zemer, Editors, Death And Euthanasia In Jewish Law, Pittsburgh: Freehof Institute For Progressive Halakhah, 1994.

Walter Jacob, Moshe Zemer, Editors, Dynamic Jewish Law, Pittsburgh: Freehof Institute For Progressive Halakhah, 1991.

Walter Jacob, Moshe Zemer, Editors, The Fetus And Fertility In Jewish Law, Pittsburgh: Freehof Institute For Progressive Halakhah, 1995.

David Jacobsen, Eric D. Jacobsen, Doctors Are Gods: Corruption And Unethical Practice In The Medical Profession, New York: Thunder's Mouth Press, 1994.

Lord Immanuel Jakobovitz, Jewish Medical Ethics, New York: Bloch Publishing Company, 1975.

Rabbi Joseph Karo, בית יוסף, 16th century.

Rabbi Joseph Karo, שולחן ערוך, 1565.

Rabbi Joseph Karo, כסף משנה, 16th century.

Menachem Marc Kellner, Contemporary Jewish Ethics, Brooklyn, New York: HPC, 1978.

Andrew Kimbrell, The Human Body Shop: The Engineering And Marketing Of Life, New York: Harper Collins Publishers, 1994.

Barry S. Kogan, Editor, A Time To Be Born And A Time To Die, New York: Aldine De Gruyter, 1991.

Stephen E. Lammers, Allen Verhey, Editors, On Moral Medicine: Theological Perspectives In Medical Ethics, Grand Rapids, Michigan: William B. Eerdmans Publishing Company, 1989.

Mendell Lewittes, Jewish Law: An Introduction, Northvale, New Jersey: Jason Aronson, 1994.

Rabbi Lieberman, Editor, תוספתא.

Rabbi Yisrael Lipshutz, תפארת ישראל, 19th century.

Ruth Macklin, Mortal Choices: Ethical Dilemmas In Modern Medicine, Boston: Houghton Mifflin Company, Random House, Inc., 1987.

Maimonides, משנה תורה, 1177.

William F. May, The Physician's Covenant: Images Of The Healer In Medical Ethics, Philadelphia: The Westminster Press, 1983.

Rabbi Levi Meier, Ph.D., Editor, Jewish Values In Bioethics, New York: Human Sceinces Press, Inc., 1986.

Rabbi Levi Meier, Ph.D., Editor, Jewish Values In Health And Medicine, Lanham, Maryland: University Press Of America, 1991.

Paul T. Menzel, Medical Costs, Moral Choices: A Philosophy Of Health Care Economics In America, New Haven: Yale University Press, 1983.

Moshe Morgenstern, Halachic Perspective: Bio-Medical Ethics - Ohr Tsiporah, Flushing, New York: Bais Meir Publications, Ltd., 1981.

P.J. Moriss, Kidney Transplantation: Principles And Practice, Philadelphia: W.B. Saunders Co., 1984.

Ronald Munson, Intervention And Reflection: Basic Issues In Medical Ethics, Belmont, California: Wadsworth Publishing Company, Inc., 1979.

Rabbi Yehoshuah Y. Neuwirth, שמירת שבת כהלכתא , Jerusalem.

John Pekkanen, Donor: How One Girl's Death Gave Life To Others, Boston: Little, Brown and Company, 1986.

W. Gunther Plaut, Mark Washofsky, Teshuvot for the Nineties: Reform Judaism's Answers for Today's Dilemmas, New York: Central Conference Of American Rabbis Press, 1997.

Rabbi Chaim Potok, Ethical Living For A Modern World: Jewish Insights, New York: Jewish Theological Seminary.

Julius Preuss, Dr. Fred Rosner, M.D., F.A.C.P., Translators, Editors, Biblical And Talmudic Medicine, Northvale, New Jersey: Jason Aronson, 1977.

Reinhard Priester, Editor, "Organ Transplantation," The Center for Biomedical Ethics, University of Minnesota, Revised September 1993.

Joseph Prouser, "'Chesed or Chiyuv?': The Obligation To Preserve Life And The Question Of Post-Mortem Organ Donation," Committee On Jewish Law And Standards, The Rabbinical Assembly, Teshuvah, New York: December 1995.

Warren Thomas Reich, Editor-In-Chief, Encyclopedia Of Bioethics, Revised Edition, New York: Simon & Schuster and Prentice Hall International, 1995.

Dr. Fred Rosner, J. David Bleich, Editors, Jewish Bioethics, New York: Sanhedrin Press, 1979.

Dr. Fred Rosner, M.D., F.A.C.P., Editor, Medicine And Jewish Law, Northvale, New Jersey: Jason Aronson, 1990.

Dr. Fred Rosner, M.D., F.A.C.P., Editor, Medicine And Jewish Law II, Northvale, New Jersey: Jason Aronson, 1990.

Dr. Fred Rosner, M.D., F.A.C.P., Medicine In The Bible And The Talmud, Hoboken, New Jersey: Ktav Publishing House, New York: Yeshiva University Press, 1977.

Dr. Fred Rosner, M.D., F.A.C.P., Modern Medicine And Jewish Law, New York: Bloch Publishing Company, Yeshiva University Press, 1972.

Dr. Fred Rosner,, M.D., F.A.C.P., Modern Medicine And Jewish Ethics, New York: Ktav, Yeshiva University Press, 1991.

Dr. Fred Rosner, M.D., F.A.C.P., Editor, Pioneers In Jewish Medical Ethics, Northvale, New Jersey: Jason Aronson, 1997.

Dr. Fred Rosner, M.D., F.A.C.P., Rabbi Dr. Moshe David Tendler, Practical Medical Halacha, Jerusalem: Feldheim Press, Ltd., 1980.

Mark Schuller, Director, Marrow And Apheresis Recruitment, Hoxworth Blood Center, Cincinnati.

Kathy S. Schwartz, The Weight Of Knowledge: An Analysis Of The Work Of Rabbi Eliezer Waldenberg On The Social And Moral Responsibility Of The Physician To The Patient And Society, Unpublished Thesis, HUC-JIR, Cincinnati:1988.

Russel Scott, The Body As Property, Viking Press, 1981

Thomas Scully, M.D., Celia Scully, Playing God: The New World Of Medical Choices, New York: Simon and Schuster, 1987.

Earl E. Shelp, Editor, Ronald M. Green, Contemporary Jewish Bioethics: A Critical Assessment Theology and Bioethics: Exploring the Foundations and Frontiers, Boston: D. Reidel Publishing Company, 1985.

Earl E. Shelp, Editor, Paul Lehman, Responsibility For Life: Bioethics In Theological Perspective, D. Reidel Publishing Company, Boston: 1985.

David Simons, M.D., Translator, Avraham Steinberg, M.D., Jewish Medical Law, Geffen Publishing, Jerusalem: 1980.

Elizabeth R. Skoglund, Life On The Line: Critical Choices You Must Face, Minneapolis: World Wide Publications, 1989.

Avraham Steinberg, M.D., הלכות רופאים ורפואה [Jewish Medical Law], Jerusalem, Israel: Gefen Publishing, 1980.

Avraham Steinberg, M.D., Chapters In The Pathology Of The Talmud.

Avraham Steinberg, M.D., ספר אסיה, 1988-1997.

Rabbi Barry Tabachnikoff, Congregation Bet Breira, Miami, Florida.

Rabbi Dr. Moshe David Tendler, Medical Ethics, New York: Federation of Jewish Philanthropies of New York, Inc., 1975.

Rabbi Dr. Moshe Tendler, "The Ethics of Organ Donations," Oolie Conference Center, Aidekman Campus, Whippany, New Jersey, Monday, December 4, 1995. [Transcribed and provided to the Transweb website by Dr. Mark Grebenau]

P.I. Terasaki, J.M. Cecka, Editors, "Clinical Transplants, 1994," Los Angeles, California: University Of California At Los Angeles (UCLA) Tissue Typing Laboratory, 1995.

Rabbi Eliezer Yehudah Waldenberg , שו"ת ציץ אליעזר, Jerusalem: Twenty-Two Volumes to date.

Leroy Walters, Tamar Joy Kahn, Editors, Bibliography of Bioethics, Volume 17, Washington, DC: Kennedy Institute Of Ethics, Georgetown University, 1991

Rabbi Yitzchak J. Weiss, שו"ת מנחת יצחק.

Rabbi Israel H. Weisfeld, Ph.D., The Ethics Of Israel, New York: Bloch Publishing Company, 1948.

Robert N. Wennberg, Terminal Choices, Grand Rapids, Michigan: William B. Eerdmans Publishing Company, 1989.

Florence A. Wilson, M.D., Duncan Neuhauser, Ph.D., Health Services In The United States, Cambridge, Massachusetts: Ballinger Publishing Company, Harper Row, Publishers, Inc., 1985.

Edward N. Winitz, "Renal Transplantation: A Medical–Legal Approach," Unpublished Thesis, School Of Law, Case Western Reserve University, 1976.

Rabbi David Ben Zimra, Chief Rabbi Of Egypt, לשונות הרמב"ם, Cairo, Egypt: 16th century.

Rabbi David Ben Zimra, Chief Rabbi Of Egypt, תשובות הרדב"ז, Cairo, Egypt: 16th century.

—— , "30 Facts About Organ Donation And Transplantation," The National Kidney Foundation.

—— , "A Few People You Should Meet...," 8343 UCPUBLICATIONS, July 1996.

—— , "American Council on Transplantation Promotional Kit," 1989.

—— , Animal Tissue Into Humans, London: The Stationary Office (formerly HMSO), 1997, ISBN 011-321866-4.

—— , Canadian Renal Failure Register.

—— , "Chances Of A Lifetime: Questions And About Unrelated Marrow Transplants," National Marrow Donor Program, Minneapolis, Minnesota, October 1994.

—— , Code of Medical Ethics: Current Opinions With Annotations, 150th Anniversary Edition, Council On Ethical And Judicial Affairs, American Medical Association (AMA), Chicago, Illinois: 1997.

—— , "Consent For Participation In The National Marrow Donor Program."

—— , "Fact Sheet, Organ And Tissue Donation And Transplantation," Hartford Transplant Center.

—— , "History Of Transplantation And Organ Donation," Hartford Transplantation Center.

—— , "Making Health Care Decisions," President's Commission For The Study Of Ethical Problems In Medicine And Biomedical And Behavioral Research, Washington, DC: United States Government Printing Office, October 1982.

—— , Judaism and Healing, New York: Ktav, 1981.

—— , "Kidney Transplant Services Manual," Richmond, Virginia: Virginia Transplant Center At Henrico Doctor's Hospital, 1985.

—— , "Living-Related Donor Transplantation Manual," Wichita, Kansas: St. Francis Regional Medical Center, 1983.

—— , "Living-Related Kidney Donation Manual," Los Angeles, California: Cedars-Sinai Medical Center, 1987.

—— , "1994 Annual Report Of The United States Scientific Registry Of Transplant Recipients And The Organ Procurement And Transplantation Network (OPTN)," Richmond, Virginia: United Network For Organ Sharing (UNOS), 1994.

——, "Organ Transplantation," Reading Packet #1, Revised September 1993.

——, "Questions And Answers About Being A Platelet Donor," Hoxworth Blood Center: University of Cincinnati Medical Center, Revised January 1995, University Publications 7404.

——, "Questions And Answers About Blood And Blood Banking," American Association of Blood Banks, 8th Edition, Bethesda, Maryland: 1994.

——, "Questions And Answers About Organ Donation," United States Department Of Health And Human Service, Public Health Service, Health Resources And Service Administration.

——, "Questions About Organ Donation," Hartford Transplant Center.

—— , "The Living Donor," [Videotape], BIOCOM, Producer, Richmond, Virginia: Southeastern Organ Procurement Foundation, 1987.

——, "The Living Gift of Life," National Marrow Donor Program (NMDP), July 1995.

——, "The National Marrow Donor Program," September 30, 1996.

Journals & Periodicals

American Jewish Committee Newsletter

American Journal Of Law And Medicine

American Journal Of Medical Genetics

American Journal Of Nephrology

American Medical News

American Nephrology Nurses Association Journal

American Reform Responsa

Anesthesia And Analgesia Current Research

Annals Of The Academy Of Medicine, Singapore

Annals Of Thoracic Surgery

Archives Of Internal Medicine

Artificial Organs (See International Journal Of)

Asahi Newspaper

ASSIA: Jewish Medical Ethics, Jerusalem, Israel.

Bioethics

Bioethics News

Biotechnology

British Medical Journal

Bulletin Of Medical Ethics

Cambridge Quarterly Of Healthcare Ethics

Canadian Medical Association Journal

Chest

Cincinnati Enquirer

Clinical Transplantation

דיני ישראל, Jerusalem, Israel.

Eubios Ethics Institute Newsletter

Eubios Journal Of Asian And International Bioethics

FDA (United States Government Food And Drug Administration) Consumer

Forward

Genetic Engineering News

Haaretz

הלכה ורפואה, Jerusalem, Israel.

המעין, Rabbi Yonah Emanuel, Editor, Jerusalem: Mosad Yitzchak Brever.

הרפואה, Jerusalem, Israel.

Hastings Center Report

Healthcare Ethics Committee Reform

Hospital Ethics

Humane Medicine

Immunology Today

Institute for Jewish Medical Ethics of the Hebrew Academy of San Francisco, California.

International Digest Of Health Legislation

International Journal Of Artificial Organs

International Journal Of Bioethics

Israel Journal Of Medical Sciences

Israel Law Review

Jerusalem Post Internet Edition

Jewish Life

Jewish Medical Ethics (See ASSIA.)

Jerusalem Report

Journal Of The American Medical Association

Journal Of Clinical Ethics

Journal Of Halachic And Contemporary Law

Journal Of Health Politics, Policy And Law

Journal Of Medical Ethics

Journal Of Medicine And Philosophy

Journal Of Pediatrics

Journal Of Reform Judaism

Journal Of Transplant Coordination

Kennedy Institute Of Ethics Journal

Lancet

London Times

Los Angeles Times

Medical Ethics Advisor

Medical Journal Of Australia

Miami Herald

Moment

Nature

Nature Biotechnology

Nature Genetics

Nature Medicine

Nephrology Dialysis And Transplantation

New England Journal Of Medicine

New Scientist

New York Times

Newsweek

נועם, Rabbi Moshe Shlomo Kasher, Editor, Jerusalem, Israel.

Patient Education And Counseling

Practical Medical Ethics

Proceedings Of The National Academy Of Sciences

Research In Veterinary Science

Science

Scientific American

שמ"ע

Social Work Health Care

Technology Review

Theoretical Medicine

Time

Toronto Law Review (University Of Toronto Law Journal)

Transplant International

Transplantation

Transplantation Proceedings

Trends In Biotechnology

UNOS Newsletter

Urologic Clinics Of North America

Wein Klin Wochenschr

Yomiuri Shimbun