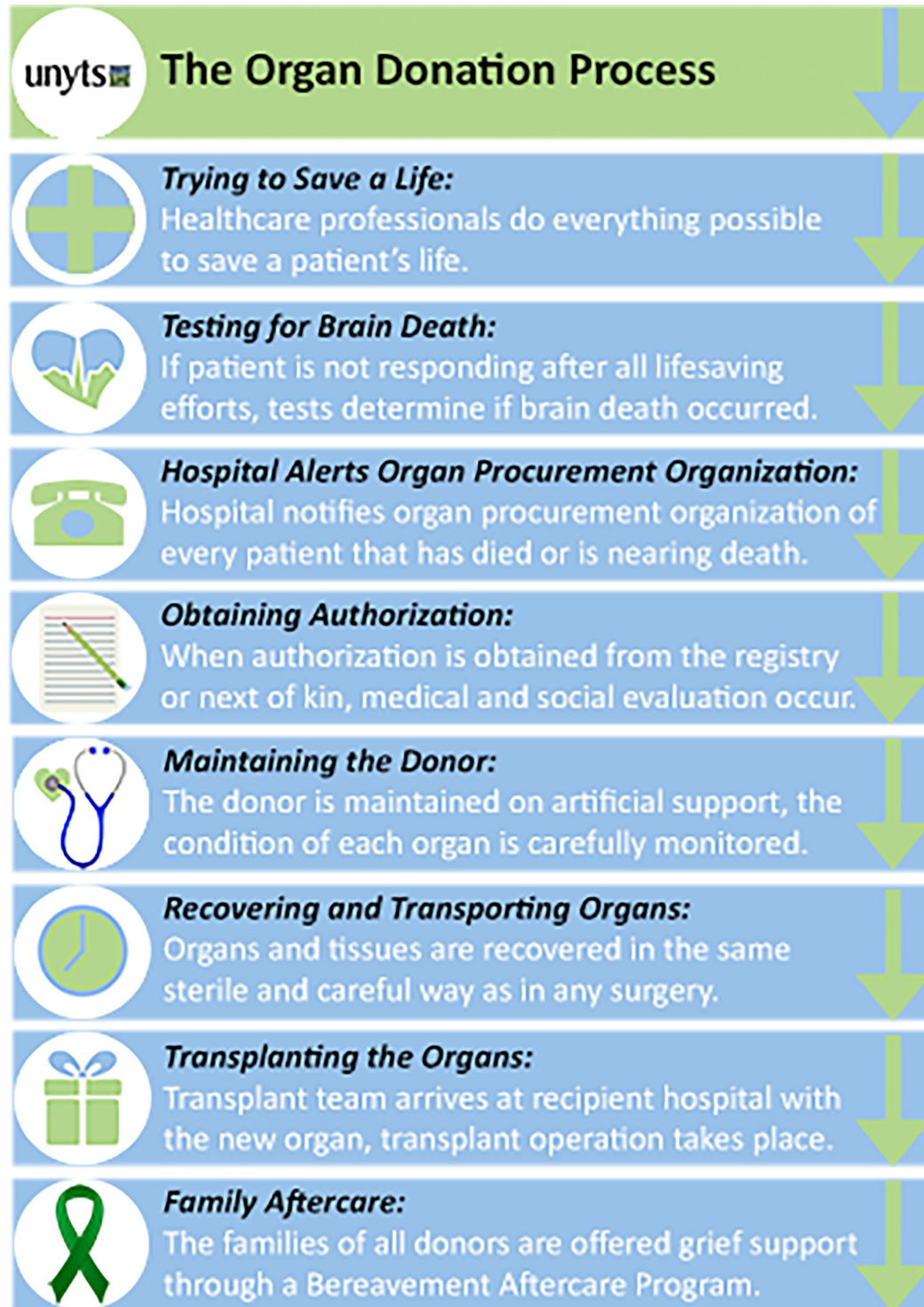


Transplantation & Donation Basics



DECEASED DONATION

The sequence and time frame of the following events will vary depending upon individual circumstances. The entire donation process takes from a few hours to twenty or more hours.



SOURCE: Unyts - <http://www.unyts.org/services/organ,-eye-tissue-donation/how-the-donation-process-works>



LIVING DONATION

Key Vocabulary

Regenerative, leukemia, directed donation, donor chain, hemodialysis access, hemodialysis, living kidney donor, paired donation, peritoneal dialysis, non-directed donation

Some decisions to donate and save lives can be made during one's lifetime. Living donation is a voluntary process and has nothing to do with registering as a deceased organ and tissue donor.

REGENERATIVE DONATION

Most types of living donation consist of regenerative tissue. This type of tissue grows back naturally after some of it is removed.

BLOOD

Blood donations help millions of patients in need! You can learn more about blood donation and find a local blood drive through the American Red Cross.

BONE MARROW

Bone marrow often saves the lives of leukemia patients. The National Bone Marrow Program's website, Be the Match, offers information and resources about registering to be a bone marrow donor.

LIVER

The liver is the body's only regenerative organ. This means that a portion of the liver can be removed from a living donor and transplanted into a recipient, and both the liver segment in the recipient and in the donor will grow to normal size in a few months. The liver is able to do the extra work necessary so that both the donor and the recipient can be healthy.

NON-REGENERATIVE DONATION

These tissues do not grow back. However, living donors offer their loved one, friend, or an anonymous recipient an alternative to waiting on the national waiting list for an organ from a deceased donor.

KIDNEY

People have two kidneys, except in rare cases. If someone chooses to donate one kidney, the remaining kidney can carry out the normal functions of both kidneys.

LUNG

A lower lobe of a lung can be donated, although this kind of procedure is very rare.

PANCREAS AND INTESTINE

Though extremely rare, it is also possible to be a living pancreas and intestine donor. Neither of these surgical procedures are currently performed in Pennsylvania.



WHY DO PEOPLE NEED ORGAN TRANSPLANTS?

Patients on the U.S. waiting list are in end-stage organ failure. This means that their organs were formed abnormally at birth or have been damaged by disease or accidental injury. When vital organs are severely damaged, they may need to be replaced for a person to survive. The chart below details the most common reasons people need organ transplants.

Donated Organ	Disease or Disorder	Description
HEART	Congestive Heart Failure	The heart no longer pumps enough blood to meet the body's needs.
LUNG	Cystic Fibrosis	A hereditary disease causing thick, sticky mucus to build up in the lungs.
LIVER	Non-alcoholic Fatty Liver Disease	Extra fat builds up in liver cells and destroys the liver's ability to filter. This tends to develop in people who are obese, or have diabetes or high cholesterol.
KIDNEY	High Blood Pressure	Kidneys are damaged, and can no longer filter waste from the body.
INTESTINE	Blocked or twisted intestines	Some babies are born with malformations of the gastrointestinal tract, reducing their ability to digest food or absorb fluid.



WHY DO PEOPLE NEED TISSUE TRANSPLANTS?

A single tissue donor can save or enhance more than 50 lives. This is because there are many kinds of tissues which can be donated, for many different reasons:

Donated Tissue	Typical Application	Benefit for Recipient
CORNEA	Replaces diseased or damaged cornea	Prevents blindness; restores vision.
BONE	Reconstruction related to trauma, tumors, degenerative diseases	Prevents the need for amputation. Accelerates, promotes and allows healing. Restores mobility.
SKIN	Temporary biological bandages for burn victims prevent infection, decrease pain, prevent heat and fluid loss, and reduce scarring	Promotes healing; natural barrier to infection.
VALVES	Repairs congenital abnormalities	Maintains unidirectional flow of blood in the heart.
TENDONS	Reconstruction related to trauma, tears, or overuse	Rebuilds joints; restores mobility.



COMMUNITIES OF COLOR IN CRISIS

The U.S. waiting list is comprised of people of all ages, genders, and ethnic backgrounds. However, certain ethnic groups are more prone to organ failure.

Although there are many reasons for needing an organ transplant, researchers from Oregon Health & Science University believe that a combination of genetic predisposition and inactive lifestyles foster higher rates of obesity among certain groups. Obesity is a major contributing factor to many diseases. And when untreated or uncontrolled, certain diseases often lead to organ failure (Ahmann, 2014).

According to the U.S. Office of Minority Health, many ethnic groups have higher rates of potentially organ-destroying diseases, such as:

- Diabetes
- Hypertension (high blood pressure)
- Liver disease

At the same time, African American and Hispanic American communities have lower rates of consent to organ and tissue donation. Several studies indicate that cultural beliefs, misinformation and/or negative portrayals of donation in TV or the media regarding donation can heavily influence an individual's decision to donate.

Although organs are not matched according to race or ethnicity, all individuals waiting for an organ transplant will have a better chance of receiving one if there are large numbers of donors from their ethnic background. This is because compatible blood types and tissue markers – critical qualities for donor/recipient matching – are more likely to be found among members of the same ethnicity. A greater diversity of donors may potentially increase access to transplantation for everyone (Office of Minority Health, 2014).

- Latinos, African Americans, and Pacific Islanders are three times more likely than Caucasians to suffer from obesity and diabetes.
- Native Americans are four times more likely to suffer from diabetes and heart diseases.
- Asian Americans suffer significantly from liver disease and hepatitis.

WHO GETS AN ORGAN TRANSPLANT?

Being placed on the waiting list for an organ transplant is not automatic. Because there are so few available organs, patients are carefully evaluated by their doctors, surgeons, and transplant staff prior to being placed on the national waiting list.

The decision is based on the status of the patient's health, their medical and social history, and the expectation of their stability after the transplant takes place – both psychologically and financially. A donation is a rare and special gift, so doctors must be sure that a potential recipient can take care of their new organ with medication, regular office visits, and healthy lifestyle choices. Patients who are unwilling to give up unhealthy drugs, including nicotine and alcohol, may be automatically disqualified.

If a transplant team feels that a patient is a good candidate for transplant, they will contact the United Network for Organ Sharing in order to put the patient on the national waiting list.

Waiting for an organ transplant is not like taking a number at the deli counter and waiting for your turn! There is no ranking or patient order until there is a deceased donor, because each donor's blood type, size, and genetic characteristics are different. When a donor is entered into the national computer system, only the transplant candidates who match that donor's medical characteristics will appear.

WHAT IS THE WAITING LIST?

When a transplant hospital places a patient on the U.S. waiting list, the patients are registered in a centralized, national computer database that links all donors and transplant candidates. In the United States, this network is managed by the United Network for Organ Sharing 24 hours a day, 365 days a year.

The "list" is a computer network which tracks the following criteria about transplant candidates:

- Blood and tissue type
- Immune status
- Degree of medical urgency
- Time spent waiting

The system uses this information to match the medical characteristics of those waiting against those of a deceased organ donor.

The waiting list does not track a candidate's race, gender, fame, or financial status. This ensures that organs are matched according to strict medical criteria, and that there is no possibility of special treatment.

transplantliving.org



HOW LONG DO PEOPLE WAIT?

Once someone is added to the list, they must wait for a matching organ to become available. This may take days, weeks, months, or even years. The average wait time per organ, according to the U.S. Department of Health & Human Services, is listed in the chart below.

Where a person lives can also impact how long they must wait. For example, waiting times may be longer in large cities with large populations because the need for certain organs will be higher. Waiting times may be shorter in smaller communities. Regardless, when an organ becomes available, it is first offered to local transplant centers. If no match is found, the organ will then be shared on a regional and national level.

ORGAN	Median National Waiting Time
HEART	113 DAYS or 3.8 MONTHS
LUNGS	141 DAYS or 4.7 MONTHS
LIVER	361 DAYS or 1 YEAR
KIDNEY	1,219 DAYS or 3 YEARS, 3 MONTHS
PANCREAS	260 DAYS or 8.6 MONTHS
INTESTINE	159 DAYS or 5.3 MONTHS



LIVING KIDNEY DONATION

GOT TWO, GIVE ONE

Since 1954, when the first successful living kidney transplant in the United States took place between identical twins, living donors have been giving the gift of life and making a difference.

Why is kidney donation possible? Put simply, because we have two. Several studies have shown that donating one kidney does not change life expectancy or increase a person's risk of developing kidney disease or any other kidney-based health problems. A person can lead an active, normal life with just one kidney. Like anyone else, they are able to play sports, have children, and exercise.

Living kidney donors effectively save two lives through their single donation: the life of the recipient, and also the life of a stranger on the waiting list, for whom a chance to receive a deceased donor's kidney is now one step closer. Additionally, if ever a living kidney donor finds themselves in need of a kidney transplant later in life, they will be at or near the top of the deceased donor list, shortening their wait time.

FINDING A LIVING KIDNEY DONOR

If you needed a kidney transplant, who would you most likely ask? Most people respond, "My family."

Unfortunately, this is not always possible. It is critical that blood and tissue types between the donor and recipient are well matched so that the chance of rejection is lessened. Nor does everyone have the option of turning to their family. For example, if someone has a family history of genetic diseases, such as polycystic kidney disease, they might not qualify to donate to a relative.

It is no small thing to try to find a living kidney donor! Some people make the decision to donate instantly – only to find that they are incompatible and cannot donate to their loved one. Fears and misconceptions can make living kidney donation a difficult subject. For example, a common misbelief is that a living kidney donor is risking their life or compromising their health. For a person who needs a kidney transplant, this misbelief may be so strong that it may prevent them from even talking to their family and friends about the possibility of living donation.

In any case, transplant centers assist transplant recipients in developing approaches to finding a living kidney donor.

TYPES OF LIVING DONATION

Matching Donors to Recipients

There are three categories of living donations:

#1 Directed Donation:

This is when the donor specifically chooses who will receive the transplant.



#2 Non-Directed Donation:

This is when the donor is neither related to nor known by the person in need. He or she makes the donation purely out of selfless reasons. The recipient is determined primarily by medical compatibility.



#3 Paired Donations (Kidney Only)

This involves at least two pairs of living-kidney donors and transplant candidates who do not have matching blood types. The transplant candidates "trade" donors so that each recipient receives a kidney from the donor with a compatible blood type.



HOW DOES THE WAITING LIST WORK?

Submitted by Dwendy Johnson, Gift of Life Donor Program

Hospitals are required by law to notify the local organ procurement organization of the impending death of a patient. The OPO staff will then consider possible medical disqualifications for organ and tissue donation. If none are readily apparent, a trained transplant coordinator will visit the hospital to further evaluate the patient. If the patient is medically suitable, the option for donation is offered to the next of kin. Once the family consents, the coordinators work with the national computerized waiting list at UNOS to match the donated organs with the most appropriate recipient(s) and arrange for the recovery surgery. They also stay with the donor's family and provide support as long as the family wishes. Immediately after the organ(s) are surgically removed from the donor, the OPO staff transports the organs to the transplant centers, where the recipients have been readied for surgery.

Individuals waiting for transplants are listed by the transplant center in their area. Their name then goes into a national computerized waiting list of potential transplant patients in the United States maintained by the United Network for Organ Sharing (UNOS). UNOS heads a 24-hour telephone service to aid in matching donor organs with patients on the national waiting list and to coordinate efforts with transplant centers.

When donor organs become available, the organ procurement organization (such as Gift of Life Donor Program or CORE) provides UNOS with information about the medical characteristics of the donor and specific organs, including medical compatibility between the donor and potential recipient(s) on such characteristics as blood type, weight, and age, as well as the recipients' urgency of need; and length of time on waiting list. Also, preference is generally given to recipients from the same geographic area as the donor, because timing is a critical element in the success of transplants.



FREQUENTLY ASKED QUESTIONS

If I decide to register as an organ donor, will it affect the quality of medical care I receive?

No! Every effort is made to save your life before donation is considered. Donors receive the same high quality care that nondonors receive. Medical personnel must follow very strict guidelines before they can pronounce death and remove the donor's organs and tissues. The first priority for the medical personnel is to save the lives of all patients. Organ and tissue donation is not even discussed until every life-saving option is exhausted and death has been declared or is imminent. The doctors and nurses at the medical center are completely separate from those who work for the organ procurement organization (OPO). Donation occurs as an option when there is nothing more that can be done to save the donor's life.

Who can become a donor and is there an age limit?

Anyone can be a potential organ and tissue donor, from newborns to senior citizens. Eligibility is determined on a case-by-case basis at the time of death and may be affected by medical history, the cause of death and other factors. Persons under 18 years of age must have a parent or guardian's consent.

What organs can be donated?

The heart, lungs, liver, kidneys, pancreas, and intestines can be donated.

What tissues can be donated?

- Cardiovascular tissue, such as heart valves and saphenous veins.
- Eye tissue, such as corneas and whole eyes.
- Bone tissue, such as ribs, bones of the arm, leg, shoulder, hip, ankle, spine and jaw.
- Connective tissue, such as ligaments, tendons, cartilage and fascia.
- Skin grafts from the front and back of the legs and the chest.

What is the difference between organ and tissue donation?

Most of the time organ donation can only be done on a donor who has been declared brain dead, but whose other organs are kept functioning by sophisticated hospital machinery. Because brain death is not a common occurrence, viable organ donors are rare. Tissue donation can occur even after the heart has ceased beating. Most deaths produce potential tissue donors (depending on the medical history). Organ donors can also be tissue donors.

Can I designate myself a donor before I get a driver's license or can I update my donor status even before my driver's license needs to be renewed?

Yes, you can decide to become a donor and make your wish official on the PA registry at any time. You can register online at www.donatelifepa.org. You need parental permission whether you register online or when you get your license.



What are the benefits of organ donation?

All organ transplants are life saving, except for kidney and pancreas transplants, which are considered to enhance the recipient's quality of life. Kidney transplantation frees the recipient from needing dialysis, and, in many instances, does save or lengthen the life of the patient.

Would my family member feel any pain if his or her organs were donated?

No. The person is deceased and no longer feels pain.

Will donation disfigure my body? Can there be an open casket funeral?

Donation does not disfigure the body and does not interfere with funeral plans, including open-casket services. In organ and tissue donation, the body is treated with a great deal of respect and dignity. Donation typically does not delay funeral arrangements.

What do religious groups think about organ and tissue donation?

Most religions throughout the world support organ and tissue donation. If you have concerns about your religion's position, you are encouraged to discuss this with your own religious advisor.

Why should minorities be particularly concerned about organ donation?

Race does not play a part in the allocation of organs. Some diseases of the kidney, heart, lung, pancreas and liver are found more frequently among specific racial or ethnic populations. For example, African Americans, Asians, Pacific Islanders, and Hispanics are three times more likely to suffer from end-stage renal disease than Caucasians. Native Americans are four times more likely than Caucasians to suffer from diabetes.

Successful transplantation often is enhanced by the matching of organs between members of the same ethnic and racial group. For example, an African American patient is often less likely to reject a kidney if it is donated by an individual who is also African American. A shortage of organs donated by minorities can contribute to longer waiting periods for transplants for minorities and potentially death.

For more information on minorities and organ donation and transplantation, contact Minority Organ Tissue Transplantation Education Program (MOTTEP) at 202-865-4888, United Network for Organ Sharing (UNOS) at www.unos.org, or the Department of Health & Human Services at www.organdonor.gov.

Are there any costs to my family for donation?

No! Donor families are only responsible for the emergency care their loved one received prior to brain death and funeral costs. Procurement agencies pay the costs associated with recovery of organs and tissue from donors. Donor families are not responsible for any additional costs.

Can people sell their organs, tissues, or body?

No! The National Organ Transplant Act makes it ILLEGAL to sell human organs and tissues in the United States. Violators are subject to fines and imprisonment.



How are organs and tissues recovered?

Organs are recovered in a sterile operating room, using qualified surgical personnel and protocols. Tissue is often recovered in operating rooms, but can also be recovered in sterile surgical facilities at medical examiners' offices or at some mortuaries. All donations are a precious gift and are treated with respect and dignity. Standard surgical sutures or staples are used to close the incisions, just as with any operation. If needed following tissue donation, prosthetic devices will be used to maintain the body's original form.

Can I change my mind?

You can register as an organ donor at donatelifeopa.org or when you receive/renew your driver's license. If you wish to make changes to your designation, you may do so upon renewal of your driver's license. Always be sure to discuss your wishes with your family regarding your own organ donation.

What is done to ensure the transplant recipient's safety?

Every effort is made to ensure the safety of organ and tissue donations. Each donor is meticulously screened for any infectious diseases, and a social history is gathered.

What are the benefits of tissue transplantation?

Tissue transplants enhance the quality of life of the recipient, except for skin, which saves more lives than all tissues and organs combined. Listed below are some of the ways tissue is used to help recipients:

- Skin grafts for burn victims
- Fusing of spinal defects to reduce pain
- Replacement of benign cystic bone defects to improve mobility
- Replacement of cancerous bone tumors to prevent amputation
- Straightening and strengthening of spines distorted by scoliosis
- Replacement of hipbones to restore mobility
- Reconstruction of jaw and other bones to restore normal facial appearance
- Restoration of sight and prevention of blindness
- Heart bypass surgery through use of saphenous veins
- Restoration of blood flow through use of saphenous veins
- Replacement of defective heart valves
- Repair damaged ligaments, cartilage and tendons for improved mobility

Can the donor's family receive any feedback after donation?

Yes. The family can request to receive information regarding how the various donated organs or tissues helped recipients.

Can recipients contact the donor's family? And how can the donor family contact the recipients of their loved one's organs?

Recipients of donated organs often want to find out specifics about the person that donated the organ they received. Also, many families that donate their relative's organs wish to know where and to whom the organs went. In general, the identity of the donor and the recipients of the organs is kept confidential to protect the privacy of each party. The regional OPOs coordinate.



What does the recovery process involve?

Only after all lifesaving efforts have been made, is the care of the donor transferred from one medical team to another. Once the decision to donate has been made, an OPO contacts the transplant surgeons who will perform the surgery to recover the organs. An OPO staff member, called a recovery coordinator, accompanies the surgeons to the donor hospital. The recovery coordinator also is responsible for ensuring that the organs are prepared appropriately for transport to the hospital where the transplant will be performed. Once the organs are recovered, the recovery coordinators then will recover the tissue and corneas, if consent has been obtained.

How many people can be helped through donation?

One donor can impact up to 8 lives directly, tissue can enhance up to 75 lives, and corneas can enhance up to 2 lives.

What is brain death?

Brain death results most often from severe head injuries caused by strokes, motor vehicle accidents, shootings, acute allergic reactions or some illnesses. When the injury or illness permanently cuts the blood and oxygen supply to the brain, the brain stops working. If the brain stops working, the body will stop working and die. Brain death is permanent and irreversible. <https://www.youtube.com/watch?v=Ffqz-vKZO5Q>

How is it decided who receives organs?

Donated organs are given to patients based on the match between the donor and intended recipient's height, weight, and blood type; medical urgency; and time on the waiting list. In spite of another common myth, a person's wealth, age, race and gender do not affect who receives organs.

How else can I help?

You can help by making a contribution to the Governor Robert P. Casey Memorial Organ and Tissue Donation Awareness Trust Fund, which helps support donor awareness and education programs in Pennsylvania. Simply add the designation amount to the driver's license fee or car registration renewal fee to help educate others about the importance of organ and tissue donation.

FAQs compiled with IOPO, JRI/Flow, The Gift of Life



RELIGIONS AND DONATIONS

All major religions support organ donation as a humanitarian gift giving life. If you have questions about donation, we encourage you to talk with the leader of your religious community.

Below is a basic summary of some of the key beliefs. More detailed information can be found at http://organ-donor.gov/donation/religious_views.htm

AME & AME Zionism

(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.

Anabaptism (Amish, Brethren, Mennonite)

The Anabaptist religions have no formal position on donation; however, they all support donation as a life-saving act to improve others' lives.

Baptism

Organ and tissue donation is supported as an act of charity. The Baptist Church leaves the decision up to the individual.

Buddhism

Buddhists believe organ and tissue donation is a matter of individual conscience and place a high value on acts of compassion. Reverend Gyomay Masao, president and founder of the Buddhist Temple of Chicago says, "We honor those people who donate their bodies and organs to the advancement of medical science and to saving lives." The importance of letting loved ones know your wishes is stressed.

Catholicism

Catholics view organ and tissue donation as an act of charity and love. Transplants are morally and ethically acceptable to the Vatican. Pope John Paul II has stated, "The Catholic Church would promote the fact that there is a need for organ donors, and Christians should accept this as a challenge to their generosity and fraternal love so long as ethical principles are followed."

Christian Science

The Church of Christian Science does not have a specific position regarding organ donation. The question of organ and tissue donation is an individual decision.

Episcopalian

The Episcopal Church passed a resolution in 1982 that recognizes the life-giving benefits of organ, blood and tissue donation.

Hinduism

According to the Hindu Temple Society of North America, religious law does not prohibit Hindus from donating their organs. This act is an individual's decision.

Islam

The religion of Islam strongly believes in the principle of saving human lives.

Jehovah's Witness

According to the Watch Tower Society, Jehovah's Witnesses believe donation is a matter of individual decision. Jehovah's Witnesses are often assumed to be against donation because of their opposition to blood transfusions. However, this merely means that all blood must be removed from the organs and tissue before being transplanted.

Judaism

All four branches of Judaism (Orthodox, Conservative, Reform and Reconstructionist) support and encourage donation.

The Lutheran Church of America

Lutherans passed a resolution in 1984 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... and to make any necessary family and legal arrangements, including the use of a signed donor card."

Mormonism (Church of Jesus Christ of Latter-Day Saints)

The Church of Jesus Christ of Latter-Day Saints believes the decision to donate is an individual one made in conjunction with family, medical personnel, and prayer.

Presbyterianism

Presbyterians encourage and support donation. They respect a person's right to make decisions regarding his or her own body.

Protestantism

Protestants encourage and endorse organ donation. The Protestant faith respects an individual's conscience and a person's right to make decisions regarding his or her own body.

Seventh-Day Adventism

Donation and transplantation are strongly encouraged. They have many transplant hospitals, including Loma Linda in California, which specializes in pediatric heart transplants.

Society of Friends (Quakers)

Organ and tissue donation is widely believed to be an individual decision. The Society of Friends does not have an official position on donation.

Unitarianism

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

Reverend Jay Lintner, Director, Washington Office of the United Church of Christ Office for Church in Society, states, "United Church of Christ people, churches and agencies are extremely and overwhelmingly supportive of organ sharing."

United Methodist

The United Methodist Church issued a policy statement regarding organ and tissue donation. In it they state, "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 donor cards or a driver's license, 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."

Donation and religion facts compiled with IOPO, Gift of Life Donor Program and CORE sources.

