



*Mendez*  
**NATIONAL INSTITUTE  
of TRANSPLANTATION**  
at the S. Mark Taper Foundation Transplant Center

**DONATING A  
KIDNEY:  
WHAT YOU  
SHOULD KNOW**





If you are thinking about donating one of your kidneys to a loved one, the information in this booklet should be helpful. After you read it, if you are still unsure about being a living donor, speak with any of the healthcare professionals on the transplant team caring for your loved one. Discuss your concerns and let them answer your questions.

## *Categories of Donors*

The first successful kidney transplant was performed in the mid-1950s between identical twin brothers. Since then, the number of people willing to make the gift of a kidney has grown to include not only close relatives but also distant relatives, friends, and sometimes total strangers.

A **living related donor** is a person who is related to the patient by blood; for example, mother, father, brother, sister, child, aunt, or uncle. Usually, the best HLA matching occurs from living related donors.

A **living unrelated donor** may be a spouse or in-law; even a close friend or a stranger.

It is important to know that the success rate has always been higher using a living donor kidney as opposed to a deceased donor (cadaveric) kidney, a kidney from a person who has been declared brain-dead.



## Benefits of Donation from a Living Donor

There are benefits to the patient when he or she receives a kidney from a living donor. These benefits include the following:

- The patient's waiting time is reduced. He or she will receive the organ while being in better health than after a delay of five to ten years, which is the national average waiting time for a deceased donor kidney.
- Surgery will be done when the patient chooses, rather than on an emergency basis, which is often the case when one is waiting for a deceased donor kidney. Therefore, the patient is much better prepared medically prior to the transplant.
- Minimal "cold time". "Cold time" is when the donor kidney is placed on ice until connected to the recipient. A deceased donor kidney is placed on ice for hours while a living donor kidney is transplanted almost immediately. Kidneys with little "cold time" usually work right away and is better for the kidney.
- Kidneys from living donors generally work better.

## Evaluating the Potential Donor

Each potential kidney donor is required to undergo a complete medical examination. The first part consists of blood tests to determine whether or not you and the patient have similar blood. These tests include blood typing (A, B, AB or O) and human leukocyte antigen (HLA) typing to establish which of the six critical antigens that you and the patient share, if not all of them. (Antigens are proteins found on the surface of the kidney cells.)





If you are determined to be a potential donor, then a complete medical history will be taken and a physical exam will be performed to make sure you are healthy and can donate. The transplant physician will require the following examinations:

- **EKG** and **echocardiogram (cardiovascular tests)** to reveal the condition and strength of your heart.
- **Chest x-ray** to determine whether or not your lungs are healthy.
- **Abdominal ultrasound** to create a picture of your stomach area.
- Extensive **urine** and **blood tests**.
- **Psychological evaluation** to determine your understanding and motivation for donation.

Additional tests may be ordered, depending on the status of your health, age, and sex. These tests may include: colonoscopy, mammogram, or Pap smear.

A person must be in very good health to donate. You must be free of diabetes, high blood pressure, kidney stones, cancer, and no history of mental illness. Both kidneys must be functioning properly, and you must not be seriously overweight.

Perhaps most important, you must be sure that you wish to contribute. Sometimes it is helpful to discuss your feelings and concerns with your minister, priest, or rabbi or with other advisors before making the decision to donate.

If you decide to proceed, and your health is good, then before transplantation you will undergo a ct angiogram of the abdomen. This advanced type of x-ray will show the doctor the anatomy and condition of the veins and arteries in your kidneys.



## Types of Kidney Removal (Nephrectomy) Surgery

There are three types of surgery to remove the kidney you wish to donate:

- 1) the open donor nephrectomy;
- 2) the minimally invasive donor nephrectomy; and
- 3) the laparoscopic donor nephrectomy.

Open donor nephrectomy involves an eight to nine inch incision either through or just below the twelfth rib. Usually a portion of the rib is removed. This procedure is very safe and the donor kidney is in very good condition when removed. Following surgery, you will remain in the hospital for approximately three days, and the recovery time is about six to eight weeks, which means that you are not able to return to work during the recovery time. You will be left with a long scar that will eventually fade.

Minimally invasive donor nephrectomy leaves the donor with only a three to four inch scar. During this procedure the muscles are separated but a portion of the rib is not removed. The operation takes about half an hour longer than the open donor nephrectomy and there is no damage to the kidney. Your recovery time is less than with the open donor nephrectomy.

Laparoscopic donor nephrectomy leaves you with a three to four inch scar beneath the bikini line and three tiny punctures that heal quickly. Usually, muscles are not cut which means you will be fairly comfortable on the day following surgery. The average hospital stay is only about two days and you may be fully back to work within two to three weeks. Due to the rapid recovery time and shorter length of stay in the hospital, most transplant centers are performing more laparoscopic than open door procedures.

You may not be able to undergo the laparoscopic procedure if you are seriously overweight or very thin; have had multiple abdominal operations; or have abnormal blood vessels surrounding your kidneys.

## *Advantages of Laparoscopic Surgery*

- Decrease in blood loss.
- Less pain experienced after surgery.
- Shorter hospital stay.
- Shorter recovery time (able to return to daily activities within two to three weeks).
- A cosmetic advantage of a smaller scar.



## *Disadvantages of Laparoscopic Surgery*

- The surgery takes longer and is more difficult.
- Surgeons may not be able to remove the kidney laparoscopically because of unexpected complications and may be required to remove the kidney using the open donor procedure.
- Not all donors are acceptable candidates for a laparoscopic procedure.

## *Risks of Donation*

In general, donating a kidney is a relatively safe procedure, but there are risks involved. You will, after all, be undergoing major surgery. There is a possibility of allergy to anesthesia, infection, bleeding, need of a blood transfusion, vascular complications (such as embolism, hernia, bowel obstruction, and keloid formature), a temporarily collapsed



lung and even unexpected complications that may require a longer-than-anticipated hospital stay. Although a person requires only one working kidney for an otherwise healthy life, additional risks after surgery may include protein in urine, high blood pressure, kidney disease, development of a tumor, and even rare events as a gunshot wound, stabbing, or similar injury to the remaining kidney.

There have been cases in which the donor developed kidney failure. Therefore, the primary goal is to make sure the donor is a suitable candidate.

### *Decision to Donate*

Donating a kidney is a major decision. Talk with members of the transplant team and ask questions about the risks involved and any concerns you may have. Inform the transplant team members of any medical problems you have. Gather all information you believe necessary before making your decision. At any time during the evaluation process, even prior to the surgery, if you decide that you do not want to be a living donor, you can stop the process by telling your transplant coordinator or any member on the transplant team and it will be kept confidential.

It is completely illegal in the United States to exchange money for a donated organ. It must truly be a gift from the heart. Giving the “gift of life” may become one of the most rewarding and satisfying experiences of your life. It has been that way for others, and we would be happy to arrange for you to talk with someone who has donated a kidney.



For further information about the kidney transplant process,  
please telephone or write:



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