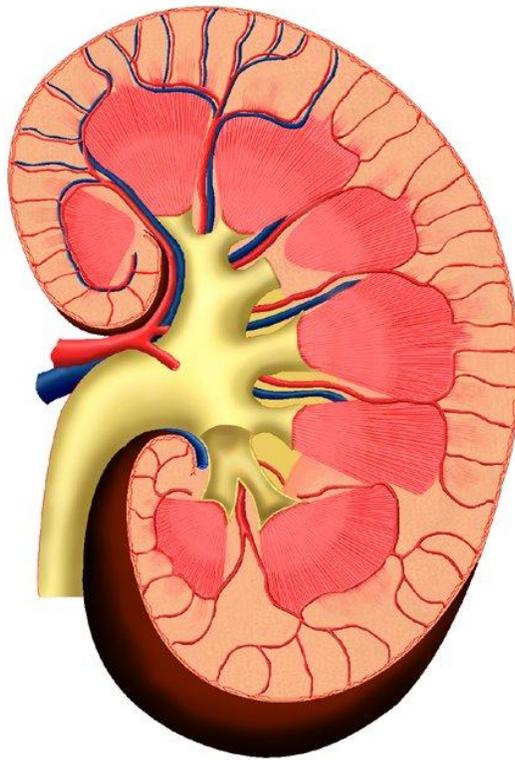


THE TRANSPLANT PROGRAM

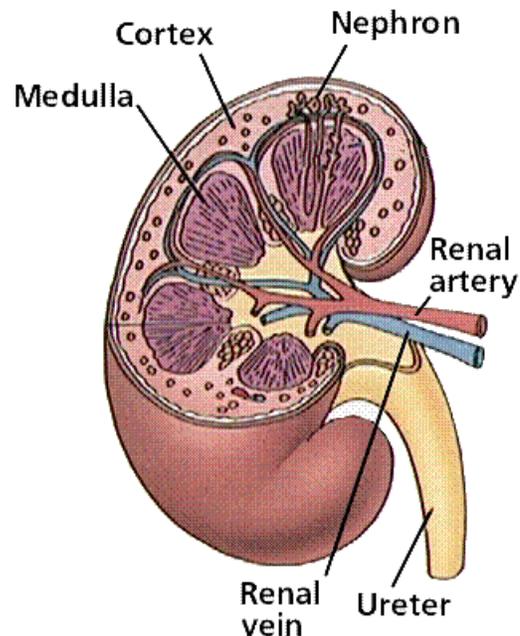


LIVING DONOR KIDNEY TRANSPLANT HANDBOOK



Overview

Donating a kidney, especially to a loved one can be one of the most rewarding experiences of a lifetime. For many individuals it is the closest thing to a miracle that anyone will ever experience. The bond that is formed between kidney donors and recipients is lifelong and everlasting. Laparoscopic surgery makes donating a kidney easier. However, it is quite normal when considering this process, to experience some initial anxiety and reluctance. This handbook has been designed to ease your anxiety and increase your understanding of living kidney donation. The information provided will assist you and your family in making one of life's best possible choices.



Commonly Asked Questions

What is a kidney transplant?

Kidney Transplantation is when a kidney from a donor is surgically implanted into a person whose kidneys are no longer able to function.

Are there different types of kidney transplants? YES

Deceased donor transplants involve transplanting a kidney from a person who has experienced irreversible and complete loss of brain function (brain death). A person who selects this type of transplantation must wait until a suitable donor becomes available. The waiting time for a suitable donor is variable and often lengthy.

Living Donor transplants involve removing a kidney from a person who is alive and healthy.

What is the benefit of Living Kidney Donation?

Living donors make the best donors. Living donor kidneys tend to last longer and begin to function quicker than deceased donor kidneys. Living donor transplants have a first year success rate of 90-95%. In addition, patients can plan for their transplant.

Who can donate a kidney?

Kidneys can be donated by anyone 18 years and older, whether it be a family member (parent, child, sibling, etc.), someone emotionally attached to the recipient (spouse, friend, etc.), or even from a stranger/good Samaritan.

Can smokers be living donors?

Smoking is considered a risk to potential donor. Smoking damages the lungs; it may put the donor at a higher risk of developing pneumonia after surgery. We recommend that you stop smoking for at least two weeks before surgery.

How can I be a living donor?

To donate a kidney, you must be in good health and have normal kidney function and anatomy. More information on testing and surgery procedures can be found below.

Are there any costs I have to pay for?

You do not pay for the tests to see if you can be a donor. You do not pay the hospital costs. However, you are responsible for the cost of your own health care after you donate.

How long does the evaluation last?

This depends primarily on you. It is anticipated that the entire evaluation will be completed within approximately one month.

Are there any dietary restrictions prior to, or after donation?

If you are overweight, you may need to lose weight before the transplant by eating a healthy diet and exercise. We do not want the donors to go on low carbohydrate, high protein diets to lose weight fast, because these diets may affect kidney function.

How long will the surgery take?

The surgery will take approximately three hours.

Will I have pain after the surgery?

Any pain that you may experience will be controlled with pain medications. Initially the pain medication will be administered to you in an intravenous form until you can take medications by mouth.

Will I need to take any medications after the surgery?

You will be given pain medications after surgery for your comfort. You will also be given a mild laxative and stool softener while you are taking the pain medication.

How long will it take for me to recuperate after surgery?

You will be in the hospital for approximately 24-48 hours after surgery. You should be able to resume normal activities in approximately two weeks.

Do I need further follow-up after the surgery?

You will have a visit about two weeks after the surgery to check your healing and you are encouraged to have a yearly medical visit with your primary care doctor.

How safe is Living Kidney Donation?

No surgery is without risk; however, living kidney donation is a safe procedure for healthy individuals. Three in ten thousand living kidney donors die from

complications of surgery. Our team will complete extensive testing to ensure that kidney donation is a minimal risk for you. Research shows that kidney donors have a normal life expectancy and lead an active life with one kidney.

How will this affect the rest of my life?

When the kidney is removed, the remaining kidney will increase in size and increase filtration to compensate for the loss of the donated kidney. You should avoid sports that involve higher risks of heavy contact or collision (eg. boxing, wrestling, martial arts, etc.)

What happens if I change my mind during the donor tests?

If you decide not to donate, the transplant team will support your decision and keep it private. They will say that you did not meet our selection criteria and were declined as a suitable donor by the team.

What is the advantage of Laparoscopic Kidney Donation?

The traditional method for living kidney donation involved a large incision, more postoperative complications, and a long recuperative period. With laparoscopic kidney donation, the entire surgery is performed through small holes that are made through the abdomen. Instruments and a miniature television camera are then inserted through these holes and the entire surgery is done on the television screen. Laparoscopic donors have less pain, a better cosmetic effect, a shorter hospital stay, a quicker recovery period and rapid return to normal activities.

What else do I need to know?

You should get as much information as you can before making a final decision. Your transplant team is here to answer any questions you may have to help in your decision process. Also, at the end of the book, there are a list of available websites and local contacts for more information.

Your Donor Evaluation

Before the transplant, you will undergo a thorough evaluation by the Transplant Team. The purpose of the donor evaluation is to ensure that you are healthy and able to donate a kidney with minimal risk. To begin your donor evaluation, you will need to call the Transplant Office and speak with the Donor Transplant Coordinator. Your Coordinator will provide you with a general overview of the donation process. At this time, it will be important for you to obtain a copy of your blood type (ABO), to determine if you are ABO compatible with your possible recipient. If you do not have access to your blood type, your Donor Coordinator will be happy to facilitate this testing. A medical history will also be obtained at the time of this initial discussion. The medical history is the first step in determining whether you are physically able to donate a kidney.

The Standard Donor Evaluation includes the following:

Financial Clearance/Referral – The donor work up is usually covered by the recipient's insurance. However, if the donor evaluation is not part of the recipient's insurance plan, all pre-transplant, donor related expenses will be billed to the kidney acquisition cost center. You will **never** be billed for any expenses relating to the transplant. However, if you receive any bills in error, please forward them to the Financial Coordinator at the Transplant Office for payment.

Do not give your insurance information to anyone; make sure they only receive the recipient's insurance information. If the registrar has a problem with this, refer them to the Transplant Financial Coordinator.

ABO & RH Typing – This testing is to determine if your blood type is compatible with the recipient's. In general,

- If recipient is blood type O donor must be O
- If recipient is blood type A, donor must be A or O
- If recipient is blood type B, donor must be B or O
- If recipient is blood type AB, donor may be A, B, AB or O

Medical History – The Donor Coordinator will take a medical history over the telephone to make sure you are medically suitable for living kidney donation.

HLA/Tissue Typing – The purpose of this test is to identify any antigens in your blood that would cause immediate rejection after the kidney is put into the recipient.

Psychiatry Consult – A psychosocial consult is done on all donors. This is to ensure that you clearly understand the surgery process and the potential risks involved. We want to ensure that all living kidney donors feel comfortable with the donation process.

Laboratory Testing – The purpose of these tests is to ensure that all your blood chemistries, counts and viral studies are within normal limits. In addition, urine tests including a 24-hour urine collection will be performed.

Chest x-ray – A chest x-ray is performed to ensure that there are no active cardio-pulmonary abnormalities.

Electrocardiogram – This test will indicate any abnormalities in regards to your heart. Some donors may need a stress test.

MR-Angiogram or CT scan – This testing takes approximately one hour to complete. Contrast is administered in an intravenous form prior to beginning the test. The contrast assists the surgeon in visualizing the kidney and its arteries and veins. These images provide a blue print to be used at the time of donation. If you are claustrophobic or have any metal in your body, please let us know in advance.

Medical/Nephrology Consult – Living kidney donors will be required to see a Nephrologist (kidney doctor) to ensure you have no underlying medical problems that would increase the risk of kidney disease for you in the future.

Transplant Surgeon Consult – This is an opportunity to discuss and clarify the surgery.

Donor Advocate Consult – This is a medical professional, typically a doctor, whose sole focus in the evaluation is to protect the best interests of the donor. This person is not involved in the care of the recipient, nor routinely involved in transplantation to eliminate any conflict of interest.

Pre-Surgery Testing

Approximately one week prior to surgery you will be scheduled to come to the pre-operative testing center. The following items will be completed at this time:

- The Final Crossmatch
- Any other physician specified tests (Chest x-ray, EKG, blood work)

The final crossmatch result will be available for your Donor Coordinator the following day. If a positive crossmatch result is reported, your surgery will be postponed as directed by the Transplant Surgeon. You will be notified only if an abnormal crossmatch result is reported; however, you are always welcome to call at any time to discuss any of your testing.

Kidney Donation Surgery

When will I be admitted into the hospital?

- Generally, the kidney donor is admitted to the hospital on the morning of the scheduled surgery. Shortly after, you will be prepared for surgery. The recipient of your kidney also will be admitted on the morning of the scheduled surgery to prepare him or her for the transplant.
- It is very important not to eat or drink anything after midnight before your scheduled surgery. You should also not take any aspirin or motrin a week prior to your surgery.
- You should expect to stay in the hospital about 1 to 2 days after the surgery. Please bring a robe and any other items you would like to make your stay more comfortable.
- The kidney recipient will be located in the Transplant Unit, which is designated for transplant patients. The staff is experienced in meeting the needs of transplant patients and their families.
- You will be admitted to the surgery/transplant unit.

What happens before surgery?

The nurse will meet with you and your family to discuss what to expect before, during and immediately after surgery. Before you go to the operating room, you will be asked to:

- Change into a hospital gown
- Empty your bladder
- Remove any dentures or partial plate
- Remove eyeglasses or contact lenses
- Remove jewelry, makeup, nail polish and hairpins

To prepare you for the surgery you will have an intravenous tube (IV) inserted in your arm to deliver fluids and medication. You will be brought to the operating room. An anesthesiologist will inject general anesthesia (pain-relieving medication) through your IV, which will make you go to sleep.

After you are asleep, the following will be done to prepare for surgery:

- A tube will be placed in your windpipe to help you breathe.
- A catheter will be placed in your bladder to drain urine.

What happens during the kidney donation surgery?

Kidney transplantation involves removing a healthy kidney from your body and placing it into a recipient's body where it can perform all of the functions that a failing kidney cannot. Your kidney will be removed using one of two methods: laparoscopic nephrectomy or open nephrectomy.

Laparoscopic nephrectomy is a minimally invasive procedure in which a special camera called a laparoscope is used to produce an inside view of the abdominal cavity to remove a kidney. Laparoscopic kidney removal is considered minimally invasive because it requires three or four small (1-inch or less) incisions rather than one large incision in the abdomen. (*See Figure 1 below*).

During the procedure, carbon dioxide gas is passed through one of the incisions into the abdominal cavity to lift the abdominal wall away from the organs below, creating more operating space to perform the surgery. The pencil-thin laparoscope and surgical instruments are then inserted through the other incisions.

The surgeon will use laparoscopic instruments to separate the kidney. Once your kidney is separated, your surgeon will remove it through a non-muscle cutting incision in the bikini area.

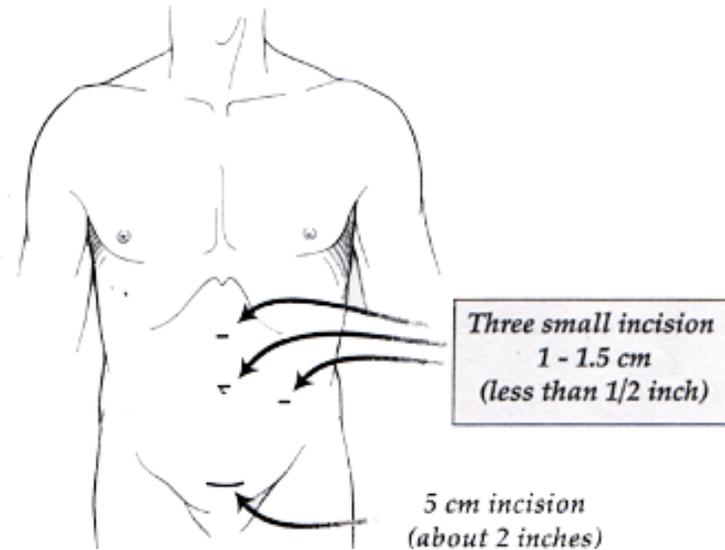
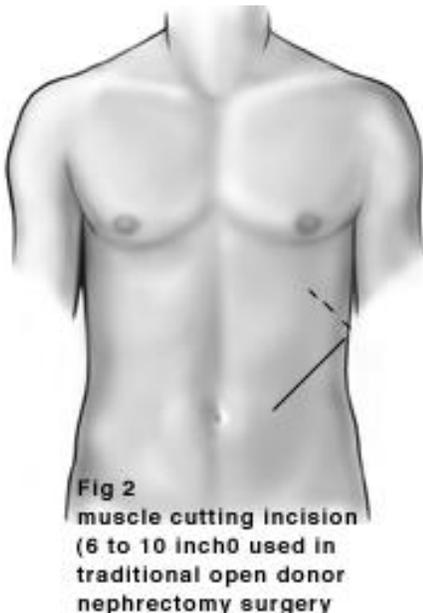


figure 1. laparoscopic approach

Most people are eligible for laparoscopic nephrectomy. Your surgeon will complete a preoperative evaluation to determine whether a laparoscopic nephrectomy is appropriate for you. However, in a small percentage of cases, even approved laparoscopic procedures must be converted to open procedures.

During open surgery, the surgeon makes a 6- to 10-inch incision in your abdomen and removes a rib in order to remove the donor kidney. (See Figure 2)



Once your kidney is removed (using either surgical procedure), another surgical team will immediately prepare the kidney for transplantation into the recipient while your surgeon completes your procedure. In most cases, your donated kidney will begin performing the work of the recipient's failed kidneys soon after the transplant.

How long will the procedure take?

Most kidney donation surgeries take 2.5 to 4 hours. Both laparoscopic and open donor nephrectomy procedures take approximately the same amount of time. However, donor patients who have had laparoscopic surgery experience significantly less discomfort, have a shorter recovery period and return to normal daily activities quicker than donors who have had traditional open surgery.

What happens immediately after surgery?

After the surgery, you will be taken to the Post Anesthesia Care Unit (PACU) where you are closely monitored. Your pulse and blood pressure will be checked every 15 minutes.

As you recover and "wake up" from the anesthesia, you may experience pain and/or nausea. The IV in your arm will still be in place, and the breathing tube may still be in place. It will be removed once you are alert and breathing on your own.

After having anesthesia, it is important for you to change positions, cough and breathe deeply, and move your legs and feet. The nurse will help you with these activities.

You will have dressings over your incision sites. The nurse will check the incision sites frequently.

Your family may visit you during your recovery for short intervals. Once you recover from the anesthesia and your vital signs are stable, you will be transferred to a nursing unit.

Your surgeon will meet and talk with your family after your operation.

After Surgery

At Montefiore Medical Center, we prefer to perform the laparoscopic technique. There is minimal scarring with this technique. Donors have a shorter hospital stay (approximately 24-48 hours), suffer much less pain, and return more quickly to normal activities than they would with the previously used, open technique.

In rare cases, the procedure may need to be converted to an open kidney removal. This may be essential to protect the kidney. The risk of this occurring is about 5%.

You will be discharged from the hospital approximately 24-48 hours after the surgery. Generally, the donor is back to normal activities such as driving, working and housework within two weeks after discharge from the hospital. You should however avoid heavy lifting for 6-8 weeks to allow your incisions to heal completely. You will receive more detailed instructions at the time of discharge.

You will need to come in for a follow-up visit after discharge from the hospital, usually at around 2 weeks. You will also need to follow-up with your primary doctor, surgeon or nephrologists for a routine check and labs at 6 months, one and two years after donation. You will receive a letter and phone call to remind you when it is time.

Information and Support

www.unos.org

www.livingdonorsonline.org

www.livingdonors.org

<http://www.healthy-donor.com>

<http://www.livingdonorassistance.org> (has good video)

Living Organ Donor Advocate Program (LODAP)

Box 1475

Dayton, OH 45401

614-358-5817

www.lodap.com

Transplant Recipients International Organization (TRIO)

Manhattan Chapter

Box 122

Throggs Neck Station

Bronx, NY 10465

Transplant Recipients International Organization (TRIO)

Long Island Chapter

Box 81

Garden City, NY 11530

516-798-8411

www.litrio.com

Transplant Support Organization (TSO)

Serving Westchester, Putnam, Dutchess and Bronx Counties

1154 Webster Avenue

New Rochelle, NY 10804

www.transplantsupport.org

Giving

“One of Life’s Greatest Rules... You cannot hold a torch to light another’s path without brightening your own.”

“How can I be useful, of what service can I be? There is something inside me, what can it be?”

Vincent Van Gogh

The greatest gift you can give someone is the gift of life.

“You Are Special”

**True gifts from the heart, are rare
But you have so graciously, selflessly decided to share.
Share not just sympathy, which would do little good,
You gave your precious organ, which surely would.**

**You had anxiety, questions and doubt,
Your giving certainly helped a loved one out.**

**Thank you for giving is so easy to say,
*You have shown thanks by giving in such a special way.***