

# KIDNEY TRANSPLANT



National  
Kidney  
Foundation™

[www.kidney.org](http://www.kidney.org)

## Know Your Stage of Kidney Disease

Did you know that the National Kidney Foundation's Kidney Disease Outcomes Quality Initiative (NKF-KDOQI™) has guidelines and commentaries that help your doctor and healthcare team make important decisions about your medical treatment?

The information in this booklet is based on the NKF-KDOQI recommended guidelines and commentaries. Speak to your doctor if you have any questions about your stage of kidney disease or your treatment.

### STAGES OF KIDNEY DISEASE

Stage	Description	Glomerular Filtration Rate (GFR)*
1	Kidney damage (e.g., protein in the urine) with normal GFR	90 or above
2	Kidney damage with mild decrease in GFR	60 to 89
3	Moderate decrease in GFR	30 to 59
4	Severe reduction in GFR	15 to 29
5	Kidney failure	Less than 15

\*Your GFR number tells your doctor how much kidney function you have. As chronic kidney disease progresses, your GFR number decreases.

## What's Inside

- Kidney transplantation
- Living and deceased donation
- “Preemptive” and early transplant
- The process of getting a kidney transplant
- What the transplant operation involves
- What to expect after receiving a transplant
- Other transplant issues
- Personal and financial concerns
- Resources

When a person's kidneys fail, kidney transplant and dialysis are the two types of treatment available to replace many of the functions of healthy kidneys.

Many people feel that a successful kidney transplant offers a better quality of life than dialysis. This is because a transplant allows for considerably greater freedom (no need to spend time on dialysis), increased energy levels, and a less restricted diet. In addition, studies have shown that people who receive kidney transplants live longer than those who remain on dialysis.

This brochure provides information on **kidney transplantation**. It was written to help you decide if transplantation is the best treatment for you.

You will likely have many new questions after reading this booklet. You may find it helpful to talk to people who have already had a kidney transplant. Feel free to speak to your doctor, nurse, and family members about your options for kidney transplant. If you use the Internet, there are helpful online resources listed at the end of this booklet.

## **What is a kidney transplant?**

A kidney transplant allows a person whose own kidneys have failed to receive a new kidney from another person. A successful kidney transplant can improve many of the complications of kidney failure.

A kidney may come from a living donor or from an individual who has died (deceased donor).

A living donor may be someone in your immediate or extended family, or it may be your spouse or a close friend. In some cases, a living donor may even be a stranger who wishes to donate a kidney to someone in need of a transplant.

A deceased donor is someone who has consented to donating his or her organs upon death. In situations where the wishes of the deceased donor are not known, family members may consent to organ donation.

## **What are the advantages and disadvantages of a transplant from a living donor?**

One advantage of receiving a kidney from a living donor is that this type of kidney has been shown to last longer than a kidney from a deceased donor. Another advantage is that the operation can be planned to suit your schedule, since it is not necessary to wait for a kidney to become available from a deceased donor. Some research shows that an early kidney transplant, with little or no time spent on dialysis, can lead to better long-term health.



A disadvantage of living donation is that a healthy person must undergo surgery to remove a healthy kidney. The donor will need some recovery time before returning to work and other activities. However, recent advances in surgical techniques for kidney removal allow for very small incisions (often called *minimally invasive surgery*). This may offer shorter hospital stays and recovery time for donors. Living donors usually experience positive feelings about their courageous gift.

### **What are the financial costs to the living donor?**

The living donor should have no financial responsibility for the surgical costs of kidney donation. The living donor evaluation and surgery is covered by Medicare or the recipient's insurance. However, insurance does not cover time off from work, travel, lodging expenses, and incidental expenses. Travel and lodging costs may be covered by the recipient, or the National Living Donor Assistance Program ([www.livingdonorassistance.org](http://www.livingdonorassistance.org)) or other programs.

Donors may be eligible for sick leave, state disability, and benefits under the federal Family Medical Leave Act. In addition, federal employees, some state employees, and certain other workers may be eligible for 30 days paid leave.

The transplant team may be able to provide more information.

### FACT

Did you know that **one healthy kidney** is enough to remove wastes and excess fluid from the blood? You are born with two, but you only *need one!*

### What are the advantages and disadvantages of a transplant from a deceased donor?

Technical advances and more choices for antirejection medicines have resulted in very good success rates for kidney transplants from deceased donors. However, there are more people who need kidneys than there are donor kidneys. Therefore, **you remain on a waiting list** (sometimes for several years) until a suitably matched kidney becomes available.



Only a transplant center can place you on the national waiting list. It is important to follow your prescribed treatment carefully while waiting for a new kidney.

### **What are “preemptive” transplant and early transplant?**

When your kidneys fail, it may be possible to get a transplant and avoid dialysis (preemptive transplant) or reduce time on dialysis (early transplant). For many recipients, this means they are able to save time and money, and keep working, as well as reap the benefits of better physical health that come with a new kidney. There are a number of factors that must be addressed when considering this option, including finding a suitable living donor, health status of the recipient, time involved in waiting for a transplant, and financial issues, to name just a few.

## How do I start the process of getting a kidney transplant?

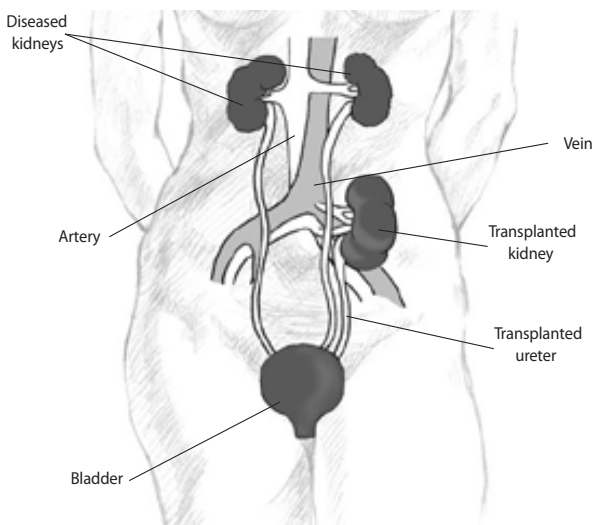
You should ask your doctor about the transplant process. He or she can refer you to a transplant center for evaluation. Or you can find a transplant program by state or region using the website of the Organ Procurement and Transplantation Network ([www.optn.transplant.hrsa.gov/members/search.asp](http://www.optn.transplant.hrsa.gov/members/search.asp)).



## What does the transplant operation involve?

The kidney transplant operation involves surgically opening the lower part of your abdomen to place the new kidney inside. The kidney will be put into the right or left side of the lower abdomen, just above the front of your hip bone. The blood vessels of the new kidney are connected to your existing blood vessels, and the ureter (urine tube) is connected to your bladder.

**The operation usually takes about three to five hours.**



You can expect to feel groggy and sore, as you would after any type of surgery. You can usually begin to eat and drink the next day. There will be a tube (catheter) in your bladder to collect and measure the urine. There will be an intravenous (IV) tube in your arm to supply you with fluids and pain medicine. The IV and catheter will be removed within several days.

You may be out of bed within a day or two. In many cases, the new kidney begins to work right away. In other cases, it may take a while for the new kidney to work. Your failed kidneys are typically not removed.

### **When can I go home?**

Most patients can leave the hospital in **two to five days**. Once you are home, the most important work begins: **the follow-up**. For your transplant to be successful, you have to be followed carefully and your medications will need to be adjusted. This is done to watch for **rejection**. You may need to have blood tests several times a week just after the transplant. Over time, follow-up visits and blood tests are required less often. However, you will still need to have your kidney function and medications checked from time to time. You must

take your medications **exactly** as prescribed by your transplant team. In addition, you must become familiar with the **signs of rejection so you can report them promptly and be treated early.**

## **What is rejection?**

The most important complication that may happen after transplant is **rejection of the kidney.** The body's immune system guards against attack by all foreign matter, such as bacteria. This defense system will recognize an organ transplanted from someone else as "foreign" and act to fight or reject this foreign "invader."

You will need to take antirejection medications (also called immunosuppressants) every day to prevent rejection of your new kidney. Most patients take three types. The major one is usually a medication like cyclosporine, tacrolimus, sirolimus, or everolimus. You may also need to take a steroid, such as prednisone, and a third medication, such as mycophenolate or azathioprine. Additional treatment may be needed if a rejection episode occurs. Regular checkups at your transplant center will help find and treat signs of rejection.

## What are side effects of antirejection medications?

Antirejection medications have a large number of possible side effects because the body's immune defenses are lowered. Fortunately, these side effects are usually controllable for most patients. If side effects do occur, changing the dose or type of medication can often lessen them. It is important to talk to your doctor about this. Some of the most common side effects include:

- lowered kidney function
- high blood pressure
- heart problems
- diabetes
- bone weakness
- weight gain
- increased risk of infections and cancer

### IMPORTANT REMINDER

You must not take any medicine or nutritional supplement that is not approved by a transplant physician because of the risk of interaction with your immunosuppressive (antirejection) medications.

## What other types of medication will I need to take?

In addition to antirejection medications, many patients may need to take **medications for blood pressure and to prevent infections and stomach ulcers**. Depending on other health problems or conditions you may have, you will usually continue to take these medications. Patients will also receive antibiotics for a few weeks or months following transplantation to reduce the risk of common infections.

## When can I return to work?

How soon you can return to work depends on your recovery, the kind of work you do, and your other medical conditions. Many patients can return to work 3 to 8 weeks after their transplant. Your transplant team will help you determine when you can go back to work.

## What are the chances that a transplanted kidney will continue to function normally?

A number of factors affect the success of kidney transplantation. Generally, the chances that a transplanted kidney will continue to work correctly are **between 89 and 95 percent one year**

**after the operation.** Success rates of transplantation are improving steadily as research continues. For example, research has led to improvements in surgical techniques, preservation of donated kidneys, and antirejection drugs. In the event that a transplanted kidney fails, a second transplant may be a good option for many patients.

### **Can people who are older or who have other health problems have a transplant?**

**Yes.** In many cases, older people and people with diseases such as diabetes and other health conditions can have successful kidney transplants. Careful evaluation is needed to understand and deal with any special risks. When you are being evaluated for a transplant, you may be asked to do some things that can reduce risks and improve the chances of successful transplantation.

### **If I have diabetes, can I also have a pancreas transplant?**

**Sometimes.** It may be possible for patients with type 1 diabetes to receive a pancreas transplant along with a kidney transplant. Your doctor can advise you about this possibility.



## Will my sex life be affected?

People who have not had satisfactory sexual relations due to the complications of kidney disease may notice an improvement as they begin to feel better after a transplant. In addition, fertility (the ability to conceive) tends to increase. Men who have had a kidney transplant have fathered healthy children. Women who have had a kidney transplant have had successful pregnancies. Women should avoid becoming pregnant too soon after a transplant. It's best to talk to your doctor when considering having a child. Birth control counseling may be helpful at this time. (See the National Kidney Foundation brochure *Sexuality and Chronic Kidney Disease* #11-10-0504.)

It is important to protect yourself against sexually transmitted diseases (STDs). Be sure to use protection during sexual activity.

## **Will I need to follow a special diet?**

One advantage of a successful kidney transplant is that there are few dietary restrictions. If you were on dialysis before, you may now be able to eat more of the foods you had to avoid. Your progress will be followed closely, and your doctor and dietitian will change your diet as needed. Generally, transplant recipients are advised to eat a heart-healthy diet (low fat, low salt) and drink plenty of fluids. (For further details, see the National Kidney Foundation brochure *Nutrition and Transplantation* #11-10-0404.)

## **How can I pay for my transplant?**

Medicare Part B will cover 80 percent of the cost of your antirejection medications. You will need to apply for Medicare Part B and pay a monthly premium. The 20 percent of the cost that Medicare Part B does not cover can amount to hundreds of dollars a month. Therefore, Medicare Part B is not enough insurance. Recipients also need a supplemental or secondary insurance policy.

For most other medicines, like those to treat infections or high blood pressure, Medicare Part D (Prescription Drug Plan benefit) can help. If you don't have Medicare Part D, you may need to apply and pay a monthly premium. The financial counselor or social worker at your transplant center will be available to answer questions about insurance and your coverage options.

## **Emotional Aspects of Transplantation**

Preparing for and having a kidney transplant is associated with a range of emotions. Your life drastically changes and you must get used to a whole new way of feeling and living. You may have many emotions related to having a donated kidney, whether it came from a deceased or living donor. You may have new financial responsibilities. Often the healthcare costs to the recipient are higher than they were prior to the transplant due to added medications and follow-up care.

Let your doctors and other healthcare professionals know of your challenges. Be sure to keep track of and describe your symptoms to the staff at your clinic. Learn from other recipients. Reach out to other recipients who

know what you're going through. Their ideas and experiences can offer help, comfort, and encouragement. Ask your transplant team for groups in your area.

Contact **NKF's Peers Lending Support Program** to be matched with a peer mentor who has been in a similar situation.

Call 855.NKF.PEERS (855.653.7337) or email [nkfpeers@kidney.org](mailto:nkfpeers@kidney.org)



## What else can I do?

Try to learn as much as you can by reading and talking to doctors and nurses, as well as kidney transplant recipients. You may be interested in the following educational resources from the National Kidney Foundation:

- *Waiting for a Transplant*  
(# 11-70-0656)
- *From Illness to Wellness: Life After Transplantation*  
(# 11-70-0657)
- *Taking Control: Money Matters for People with CKD*  
(# 01-10-0250)
- *Bone Health and Kidney Transplant*  
(# 11-50-2208)
- *Heart Health and Kidney Transplant*  
(# 11-50-2108)
- *Life After Transplant: Your Guide to Staying Healthy After Kidney Transplantation*  
(# 11-10-3012)
- *Sexuality and Chronic Kidney Disease* ( # 11-10-0504)
- *Nutrition and Transplantation*  
( # 11-10-0404)

Brochures can be mailed to you free-of-charge. Call the NKF's toll-free number at **855.NKF.CARES (855.653.2273)**.

- [www.kidney.org/livingdonors](http://www.kidney.org/livingdonors)  
An interactive, supportive and educational community for donors and potential donors.
- [www.kidney.org/transplantation/transaction](http://www.kidney.org/transplantation/transaction)  
NKF's website of resources for transplant recipients.

Other websites:

- [www.livingdonorassistance.org](http://www.livingdonorassistance.org)  
National Living Donor Assistance Program
- [www.optntransplant.hrsa.gov](http://www.optntransplant.hrsa.gov)  
The Organ Procurement and Transplantation Network (OPTN)
- [www.unos.org](http://www.unos.org)  
The United Network for Organ Sharing (UNOS)
- [www.transplantliving.org](http://www.transplantliving.org)  
Transplant Living

View the Transplantation App online by going to:

- <http://www.kidney.org/atoz/content/immunosuppression.cfm>

Or, download the Transplantation App to your mobile device by going to:

- [www.kidney.org/apps](http://www.kidney.org/apps)

## **TransAction Council**

Membership in NKF's **transAction Council** is free and open to those who have received organ transplants, as well as their families and friends. Membership benefits include: a voice in legislative and public policy issues affecting transplant recipients; information on other NKF programs and services of interest to transplant recipients; and an email subscription to *Transplant Chronicles*, an electronic newsletter for recipients and their families.

**The National Kidney Foundation** is the leading organization in the U.S. dedicated to the awareness, prevention, and treatment of kidney disease for hundreds of thousands of healthcare professionals, millions of patients and their families, and tens of millions of Americans at risk.

Help fight kidney disease.  
Learn more at **[www.kidney.org](http://www.kidney.org)**

When you donate a kidney,  
you give the gift of life.



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**Awareness. Prevention. Treatment.**

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