



Kidney Transplant

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When the kidneys fail, dialysis can serve as a substitute for some of the functions that the kidneys normally do. Some patients do well with dialysis and are not interested in transplantation. Others have problems with dialysis. They may have difficulties with vascular access, or they find that the time dialysis takes interferes with their daily activities. Still others just do not feel well on dialysis or dread the needles that are a part of hemodialysis. For these patients, transplantation may be a treatment option for their kidney disease.

On average, patients on dialysis have more medical complications and do not live as long as patients with a successful kidney transplant.

The information below is general information about kidney transplant. Remember that **each transplant center has its own criteria and evaluation process for transplant candidates**. You should check with your nearest center for their specific requirements.

Am I eligible for a kidney transplant?

Each individual patient is evaluated by the transplant team (see below) to determine if they are healthy enough to undergo the surgery. If you have serious medical problems such as severe heart, lung or liver disease, advanced cancer, or active infection, you may not be eligible. Additionally, those actively abusing illicit drugs or alcohol and those who are not compliant with their medical regimen may not be eligible.

Patients do not have to be on dialysis to be eligible for a kidney transplant. Those with kidney function at or below 20% of normal may be referred. Certainly those on dialysis are eligible for consideration.

If you are interested in transplant, you should discuss your eligibility with your nephrologist or primary provider. You may also contact the UNC Transplant Center directly, toll free, at 1-888-263-5293

What are the different kinds of kidney transplant?

To undergo a transplant, you will need a donated kidney, either from someone who has died (called a *deceased donor*) or from a *living donor*.

Living donor transplant:

This is when a person (while alive) gives you one of his or her own kidneys. This type of surgery has several advantages. Kidneys from living donors tend to work better and longer than those from deceased donors. Additionally, this is a surgery that can be planned, so you will know the exact date of your transplant.

A living donor must be in good general health. He or she cannot have high blood pressure, diabetes, kidney stones or be excessively overweight. Donors will have to undergo several tests to make sure their own health will not be jeopardized by donation. Testing will include blood tests to see if their blood type and kidney will be compatible with your body. There are some situations where we can still use a living donor even when the blood types or other tests do not match, so it is important to have **any** potential living donors contact the transplant center to be evaluated.

Not all patients are eligible to receive a living donor kidney transplant. You will need to discuss this with your nephrologist and the transplant team.

Deceased donor transplant:

Deceased donors are people who have died and donated their kidneys for transplantation. Unfortunately, there is a small supply of these kidneys. You will need to be placed on a waiting list until a kidney becomes available for you. It is difficult to estimate how long this will take, but it is usually several years.

What is the evaluation process I would go through to get a kidney transplant?

Whether you have a living donor, or wish to be placed on the waiting list for a deceased donor transplant, the evaluation process is the same. There are a number of tests that will be done to evaluate your overall health and help to determine if transplant is the right treatment for you. They include blood tests, X-rays and other radiology studies, tests to determine heart function, and other tests based on your medical history. You will also meet with a transplant social worker, financial counselor, and transplant psychologist. If you are placed on the deceased donor waiting list, many of these tests will need to be repeated periodically during the time you are waiting for a kidney. This makes sure you are still healthy enough to receive a transplant when the time comes.

During the evaluation process, you will be assigned to a transplant nurse coordinator who will help arrange all the testing you need and be available to answer your questions and address your concerns.

Who are the members of the transplant team?

Transplant surgeon – one of the doctors who evaluate whether you qualify for a kidney transplant, and also performs the actual surgery. After surgery, he or she will look out for possible surgical complications. This doctor can answer most of the questions you may have about the surgery and its risks.

Transplant nephrologist – kidney specialist who monitors nonsurgical aspects of your care. He or she will follow kidney function, treat any rejection episodes and monitor post-transplant medications. You will see this doctor frequently after your transplant.

Transplant nurse coordinator – registered nurse who will keep track of how you are doing throughout the entire transplant process. He or she has many duties, including organizing patient evaluations, monitoring laboratory results, and educating you about your medications. This person will be your main contact and has easy access to the doctors when there is a problem.

Financial coordinator – will help you and your family deal with the financial burdens of a kidney transplant, including explaining what your insurance will and will not cover, and to direct you to patient financial resources that may be available to you.

Social worker – will help you and your family cope with the nonmedical aspects of kidney transplant. He or she can help identify emotional or family issues, and provide support including referral to community support services.

Pharmacist – helps to oversee and coordinate the many medications you will need after your transplant.

Dietician/nutritionist – can help design healthy meals for you both before and after your transplant.

You – one of the most important members of the team! It is important for you to be an active participant in your own care by asking questions and discussing issues or concerns that you have.

What happens when I complete my evaluation for transplant?

If you have been determined to be a suitable candidate for transplant, your name will be placed on the kidney transplant waiting list. This occurs even for those who have a potential living donor, in case your donor is eliminated from consideration. You and your regular nephrologist will receive a letter stating that you have been placed on the waiting list. *Until you receive this letter, you are not yet on the waiting list for a kidney transplant.* If you have questions whether or not you are on the waiting list, you should contact your transplant nurse coordinator.

This waiting list is for everyone in the nation. It is managed by the **United Network for Organ Sharing (UNOS)**.

Evaluation of a living donor generally begins after you have completed your own evaluation. The transplant surgery is then scheduled after the donor's evaluation is complete at a time that is mutually convenient to the donor and recipient.

Is it possible to have a kidney transplant before I am on dialysis?

Yes, this is called a *pre-emptive transplant*. Due to the years required to wait for a deceased donor, most people who have a pre-emptive transplant have a living donor. Early referral to the transplant center is the best way to assure that both you and your donor can complete the evaluation process before you need dialysis.

Even if you think you may be able to get a pre-emptive transplant, it is still important to make a dialysis plan with your regular nephrologist. That way you can be prepared in case something happens that delays the transplant.

How is the kidney transplant surgery performed?

The surgery usually lasts about four hours. Most of the time it is not necessary to remove your own kidneys (rarely they are removed in a separate operation). The new kidney is placed on the right (usually) or left lower abdomen just above the groin area. The blood vessels of the donor kidney are attached to your own blood supply and the ureter is joined to your bladder. Usually a small tube (called a stent) is inserted into the inside of the ureter to ensure free passage of urine. The stent will be removed during a simple outpatient procedure within 2-3 months.

What are the risks of kidney transplant surgery?

As with any surgery, there are potential complications. These include, but are not limited to:

- risks of general anesthesia (being put to sleep)

- needing to return to the operating room to resolve a surgical complication
- wound infection (< 5%)
- blood clot in the vessel to the kidney, requiring removal of the transplanted kidney (< 1%)
- hernia development in the area of the incision (< 3%)
- minimal numbness around the incision area (nearly 100%)
- non-function (kidney never works from the start) of the transplant kidney (< 1%)
- leakage of urine in the area where the ureter is attached to the bladder (< 1%)
- bleeding

How long will I have to take anti-rejection medications?

You will need to take these medications every day **without fail** as long as you have the kidney transplant. If you fail to take your medications regularly, even if it has been many years since your transplant, you will likely have rejection of the kidney. After the transplant, the transplant team will teach you all about your medications and how to take them, and will answer any questions you have.

What is rejection?

The body sees the transplanted kidney as a foreign object, and the normal response is for the body to fight against the new kidney. This is mostly prevented by the medications you will take after the transplant. However, even when medications are taken properly, a rejection episode can occur. Rejection can occur at any time after the transplant, but is most likely in the first 3 to 6 months after surgery. Most episodes of rejection (>95%) are able to be treated successfully, and loss of the kidney can usually be prevented if rejection episodes are noticed early and treated quickly.

Unfortunately, it is not possible to determine in advance who will have a rejection episode, or who will lose their transplanted kidney. Often rejection does not make you feel bad, so it is important to get regular blood tests as directed by your transplant center to monitor for changes in your kidney function.

Will the disease that caused my kidneys to fail come back in my transplant?

This is known as recurrent disease, and the risks are different for each disease.

Diabetes and high blood pressure can affect a kidney transplant just as they affect your original kidneys. It is important to have good control of these diseases after your transplant to minimize this effect. Some of the medications used to prevent rejection can actually raise the blood pressure and blood sugar levels, so control may be more difficult after the transplant. Your transplant team will help you, but don't be surprised if you need additional blood pressure or diabetes medications after a kidney transplant.

Diseases that affect the filtering unit of the kidney are called glomerular diseases. They each have a unique risk of recurrence. Click below for further information on the risk of recurrence in the specific glomerular diseases:

- [ANCA Vasculitis](#)
- [Anti-GBM Disease](#)
- [Focal Segmental Glomerulosclerosis \(FSGS\)](#)
- [IgA Nephropathy](#)
- [Membranous Nephropathy](#)

There are other, more rare glomerular diseases for which patients are transplanted. Unfortunately, there is not as much information about the risk of these diseases coming back in a transplant.

If you have a glomerular disease, you should discuss the risks of recurrence with the transplant team prior to your surgery. Very rarely, the risk of the disease coming back is so high that transplant is not recommended.

What are the benefits of getting a kidney transplant?

In addition to the longer life span of patients with a transplant compared to those on dialysis, there are additional benefits. Many patients report increased energy and well-being after recovering from the surgery. Women who are unable to get pregnant while on dialysis are often able to have children after a successful kidney transplant (though it is recommended that patients wait at least one year after the transplant before becoming pregnant, and only after discussion with the transplant team). There are generally fewer fluid and dietary restrictions after transplant, though they are still sometimes necessary because some of the medications can cause retention of salt and water. Finally, freedom from dialysis leads to a less restrictive lifestyle, and most patients are able to return to work and other activities, such as travel.

Should I get a kidney transplant?

The answer to this question will be different for each patient. For young people, or those with few or no other medical complications, transplant is probably the best treatment option. For those who are older and have other medical complications, the picture is less clear. It is not possible to just look at a person or measure something in the blood to determine what will happen after a kidney transplant. Instead, you must work closely with your regular nephrologist and the transplant team to make the decision about transplant that is right for you.

While it is expected that things will go well after a transplant, there can be problems, and major ones, at that. Sometimes, for reasons that are difficult to determine, some kidneys will fail earlier rather than later. There are no guarantees, but most of the time kidney transplant is a success, and most patients are grateful to have received this gift of life.

Patient Resources

UNC Comprehensive Transplant Center

1-888-263-5293

www.surgery.med.unc.edu/AbdominalTransplant/

United Network for Organ Sharing (UNOS)

1-888-894-6361

www.transplantliving.org

www.unos.org

Transplant Experience

www.TransplantExperience.com

National Kidney Foundation

1-800-622-9010

www.kidney.org

American Association of Kidney Patients (AAKP)

1-800-749-2257

www.aakp.org



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