

Kidney Transplant

A treatment option for kidney disease

Class Goals

- 1. Understand the pros and cons of kidney transplant.**
- 2. Understand the care needs involved with having a kidney transplant.**

Overview

Transplant is another treatment option for chronic kidney disease. Transplants are usually very successful, but they are not right for everybody. If you are thinking about having a transplant, you will be evaluated at a transplant center.

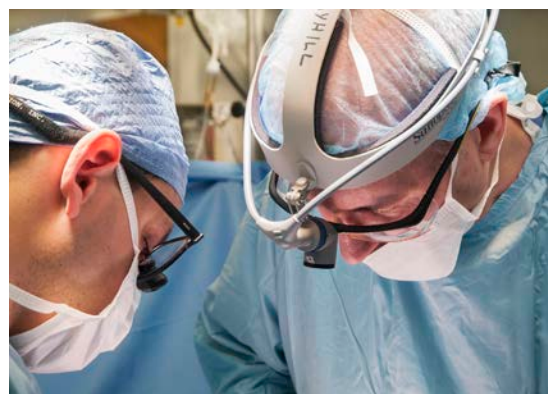
Donated kidneys can come from living donors or from organ donors who have died (deceased donors). If you are on the waiting list for a deceased donor kidney, there is usually a long wait before you get your transplant.

After transplant surgery, taking care of your new kidney is a complex process. You must be closely observed by your healthcare providers and talk with them often.

You will need to take many medicines after a transplant, for as long as you have the new kidney. Each of these medicines has many side effects.

Kidney Transplant

One treatment option for chronic kidney disease is transplant. To receive a kidney transplant, you must be close to needing dialysis or already be on dialysis. To qualify as a transplant candidate, you will need to have many tests. These can be coordinated by your healthcare provider or a transplant coordinator at the transplant center you choose.



Transplant surgery is one possible treatment for kidney disease.

Pros and Cons of Kidney Transplant

As with each of the other treatment options, kidney transplants have pros and cons.

PROS	CONS
<ul style="list-style-type: none">• The new kidney works like a normal kidney.• You have fewer limits on food than with dialysis.• You will feel healthier and have a better quality of life.• You do not have to be on dialysis.	<ul style="list-style-type: none">• Kidney transplants are major surgery.• You may have a long wait for a deceased donor kidney.• Your body may reject the new kidney.• You will need to take immunosuppressant medicines as long as you have the kidney transplant.• Immunosuppressant medicines increase your risk of infection and cancer, and they have many other side effects.

Who can receive a kidney transplant?

Most often, kidney transplant recipients are close to starting dialysis or have already started dialysis. They also must:

- Not have any life-threatening health problems other than kidney disease.
- Be expected to live longer than 5 years.
- Not have any infections.
- Not smoke.

Where do transplant kidneys come from?

Deceased Donor (Cadaveric) Kidney Transplants

In deceased donor (*cadaveric*) transplants, a kidney is taken out of a person who has died. The person's family has given consent to organ donation, and the deceased person's health history has been carefully reviewed to be sure the organs are healthy and safe for transplant. In 2013, 66% of the kidney transplants done in the U.S. (66 out of 100) were from deceased donors, and 34% (34 out of 100) were from living donors.

Cadaveric organs are given to recipients listed in a national database. This database is kept by the United Network for Organ Sharing (UNOS). If you do not have a living donor available and you qualify as a candidate for a deceased donor transplant, your transplant center will enter your name into the UNOS database.

U.S. data shows that about 90% of deceased donor kidney transplants (90 out of 100) are working 1 year after transplant.

Living Donor Kidney Transplants

Living donor kidneys come from someone who has offered to donate his or her kidney. This may be a relative, a friend, or even someone you do not know. Because we can live with only 1 working kidney, kidney donors are able to donate 1 kidney and still live a normal life.

Living donors must be very healthy. They go through a very thorough physical exam and many tests to make sure that being a donor will not harm them.

Transplant centers evaluate living kidney donors. This is usually done after it has been decided that it is safe for you to receive a transplant.

Donors and recipients must have compatible blood types:

If recipient blood type is Donor must be blood type

O	O
A.....	O or A
B.....	O or B
AB	O, A, B, or AB

There are a few, but rare, exceptions to this blood-type matching.

Living donors cannot receive any money for their donation. Selling human organs is illegal in the U.S. Costs of evaluation, surgery, and the hospital stay are paid by the recipient's medical insurance. But, costs of time away from work, childcare, or travel are not usually paid. These costs can sometimes keep a person from being able to donate.

About 95% of living donor transplants (95 out of 100) are working 1 year after transplant.

Donor Exchange Programs

Sometimes, a kidney donor's blood type is not a match for the recipient they wish to donate to. These donors can join a "donor exchange" program, where they sign up to donate their kidney to a stranger. In exchange, their original recipient receives either:

- A kidney from the stranger's donor,
Or
- A higher place on the transplant wait list.

Each transplant center has its own donor exchange program. Ask your transplant center for more information.

The Process of Kidney Transplantation

Steps for Being Evaluated and Preparing for Transplant

If you decide you want to learn more about kidney transplant:

- Ask your healthcare provider to recommend a transplant center. You can also contact transplant centers directly to ask about their programs.
- Make an appointment with a center, and have your medical records sent to that center. Your healthcare provider may choose to begin standard pre-transplant testing at this point.
- Complete the intake interview with the transplant team at the center. This may include visits with:
 - A transplant surgeon
 - A transplant *nephrologist* (doctor who specializes in kidney diseases)
 - A transplant nurse coordinator
 - A social worker
 - A dietitian
- The transplant team will review your health issues and talk with you about the evaluation process. They will also talk with you about why a transplant may or may not be a good treatment option for you. This is your chance to ask questions and share information.
- If getting a transplant sounds like a good option, you then complete an in-depth “workup” to see if getting a kidney transplant would be safe for you in all ways – physically, emotionally, and financially. This workup includes many exams and tests. It can be done at the transplant center, or it can be managed by your doctor closer to home.
- Often, these standard tests reveal problems that must be handled before you can be a transplant candidate. For instance, you may need to have your gallbladder taken out if you have gallstones. Or, you may need to have dental work done if you have cavities. Or, you may have an infected foot ulcer that needs to heal.
- When your pre-transplant evaluation testing is done and the transplant center has all the results, the transplant team meets to review these results and decide if you are a transplant candidate.
- If you have a possible living donor, that person will also complete an evaluation. If they are approved, a surgery date will be set.
- If you do not have a suitable living donor, your name will be entered into the UNOS database for a deceased donor kidney.

Waiting

The wait for an organ can be long and unsure. In the greater Seattle area, the wait can range from 18 months to 6 years or even longer, depending on your blood type.

Every month, you will give a blood sample to Bloodworks Northwest (formerly called Puget Sound Blood Center). Your blood is tested there every time a blood type-compatible donor is available. Bloodworks NW provides the supplies for submitting this sample.

Since a kidney can become available any time of day or night, your transplant center must be able to contact you 24 hours a day. Many people waiting for a kidney transplant wear a pager or carry a cell phone so they can be reached by the transplant center at any time.

Transplant Surgery

When a kidney becomes available:

- You will receive a call to go to the transplant center to get ready for surgery. You will be examined to see if there is any condition that may indicate you cannot get the transplant.
- In the operating room, the transplant surgeon will place the transplanted kidney in your lower abdomen. The artery and the vein from the kidney will be connected to your artery and vein. They will also connect the ureter of the new kidney to your bladder. (See Figure 17.)

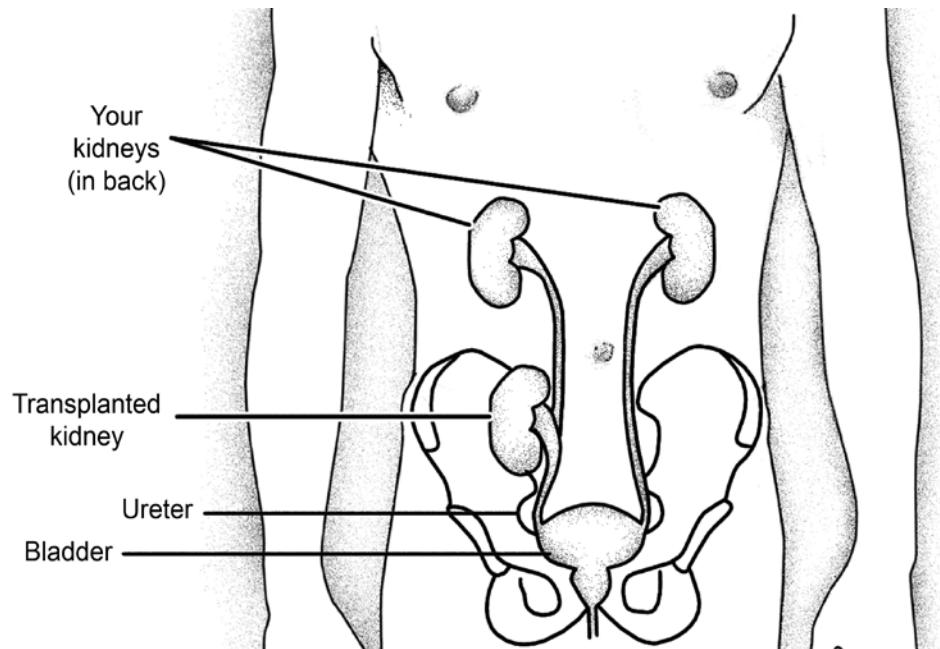


Figure 17: Where your own kidneys are and where the transplanted kidney is placed

- The new kidney may start working right away, or it may take a while. If it does not work right away, you may need dialysis while you wait for the kidney to start working. This can take from days to weeks. This delay is more common with deceased donor transplants than living donor transplants.
- The hospital stay after transplant surgery is about a week. During your stay in the hospital, you will learn how to take care of yourself with a transplanted kidney.

Follow-up Care

After you leave the hospital, you will have many follow-up clinic visits. This is because most problems happen within the first 3 months after transplant. When you are more stable, you will not have to make so many clinic visits. But, you will continue to need follow-up care with your transplant center and your healthcare provider for as long as you have the transplanted kidney.

Complications and Side Effects

Since the transplanted kidney is foreign to your body, your body's natural reaction is to reject it. To prevent this from happening, you will need to take special drugs called *immunosuppressants*. You will need to take these drugs **every day** for as long as you have the transplant. If you stop taking these drugs, your body will reject the kidney.

Treatment with immunosuppressants may cause these side effects:

- A weakened immune system, which makes it easier for you to get infections
- Changes in the way you look – your face may become fuller and you may gain weight or develop acne or facial hair
- Diarrhea or constipation
- Appetite changes
- Shakiness
- Difficulty sleeping
- Low energy
- High blood pressure
- High cholesterol

Not all people taking these drugs have these side effects. Most side effects decrease when the doses can be reduced by your doctor.

Some immunosuppressants can also cause:

- Some types of cancer

- *Cataracts* (clouding of the lens of the eye)
- Bone disease
- Liver or kidney damage

Very close follow-up care may prevent some of these side effects. It may also allow your healthcare providers to find any problems early, so the problems can be treated right away.

About Pancreas Transplant

If you have type 1 diabetes, it may be an option for you to have a pancreas transplant at the same time that you have a kidney transplant. In this operation, a pancreas from a deceased donor is transplanted to produce the insulin that your own pancreas no longer produces. After a pancreas transplant, you will no longer need insulin injections.

Most times, a kidney and pancreas from the same deceased donor will be transplanted together. Sometimes patients who have had a successful kidney transplant choose to have a pancreas transplant later.

When done at the same time, pancreas and kidney transplant often results in more surgical complications than when only a kidney transplant is done. This means you may need to take higher doses of immunosuppressant medicine.

To qualify for a pancreas transplant, you will need to meet many more requirements than for kidney transplant. This option needs to be reviewed thoroughly with your transplant team to see if it might be right for you.

Your Responsibilities

Receiving a transplant is like receiving an incredibly generous gift. Taking good care of yourself is one way to show the donor family and other patients still waiting for such a gift how grateful you are. This means:

- Keeping track of your medicines and taking them as prescribed. (See Figure 18.)
- Following the instructions you are given on how to take care of yourself and your new kidney.
- Coming to all your clinic appointments.
- Talking with your healthcare team about problems, concerns, or questions.

If you become a kidney transplant recipient, be sure to make the most of your new chance at life!



Figure 18: You will need to take many different medicines after having a kidney transplant. A pill organizer may help.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.
