

Kidney - Living Donor Evaluation

Who can be a kidney donor?

There are several things to consider when thinking about living kidney donation. The donor team will help you find your answers to these questions. Do you want to donate? Are you healthy and medically fit? Are you able to donate directly to the person who needs the kidney, or would you be willing to consider 'paired exchange' transplant? How will donation affect your own, and your family's lives? Are you ready and able to do this?

Living kidney donors should be 18 years of age or older. They can have any type of relationship with the person who needs the kidney: brothers, sisters (blood related or adopted), parents, children, aunts, uncles, cousins, nieces, nephews, spouses, partners, in-laws, close friends, co-workers, club/organization members, church members, or connected via social media. A so-called directed donor knows someone in need of a kidney transplant and wants to help this specific person while a non-directed donor is a person who wants to help anyone in need of a kidney transplant.

Any living donor needs to be in good physical and mental health. They cannot have a history of chronic or multiple kidney stones, uncontrolled high blood pressure, diabetes, heart bypass or heart stent(s), a current cancer. Other health problems such as many kidney or bladder infections, minor heart disease or obesity will be looked at on a case-by-case basis to decide if the risk is acceptable.

UW Health supports living kidney donor transplant in many ways and there are several options to consider when thinking about living kidney donation. These options

are shown on page 7. Once a donor candidate is medically approved, the goal is find the best option for the donor and recipient pair. UW Health is partnered with the National Kidney Registry, a paired kidney exchange (PKE) program. This registry can help identify matches for the person who needs a kidney transplant.

The benefit of live donor transplant for the recipient

Studies have shown that long-term success for the recipient candidate is better with a living kidney donor. With a living donor, the health of their kidney is well known. The donor is a healthy person who has just completed a full medical evaluation.

Having a kidney from a living donor lets everyone plan for the surgery. The transplant date is made ahead of time, unlike a deceased donor transplant where the surgery date can happen at any time. Recipients may not need to begin dialysis and may not have the long waiting period often linked with the waiting list. A living donor organ is healthy and has not had a medical trauma, unlike a kidney donated at the time of death. Most often, the living donor kidney will start to work right away whereas the deceased donor kidney may have a delay before starting to work.

What if I want more information about living kidney donation or if I want to be tested?

If you are thinking about being a living kidney donor you can start learning about donation at any time. We highly encourage donors to start by going to the UW Health website: www.uwhealth.org/transplant Other online learning sources include www.kidneywi.org/living-donation

www.exploret transplant.org/for-familyfriends/become-a-living-donor
www.ast s.org/resources and
www.kidneyregistry.org It is important for the donor to learn about kidney donation as well as kidney transplant.

The preferred way for any donor who wants to be tested is to contact the UW transplant program by completing the UW Health online Living Donor Application at www.uwhealth.org/canibeadonor. If you don't have computer access, you can contact the transplant office by phone and one of our assistants will help to complete the online application. Our Transplant office phone # is 608-263-1384.

A person who knows a specific person in need of a kidney transplant, called a directed donor, is welcome to come to the recipient's transplant evaluation. During the transplant evaluation process, patients are given information about how a possible donor should contact the UW Health donor team and is asked to provide it to any potential donor(s).

A person who doesn't know a specific person in need and is considering living kidney donation, called a 'non-directed donor,' can complete the UW Health online application at a time they feel ready to take the next step in looking at being a kidney donor.

How does the living kidney donor application work?

First, the possible donor provides basic information and a brief health history through the UW online application at www.uwhealth.org/canibeadonor. This is reviewed by the UW Health donor team. If a person's health history is acceptable, a

donor coordinator will contact the person to discuss donation considerations, next steps to the evaluation and testing.

How does the evaluation work?

It is best if the medical evaluation takes place at UW Health in Madison WI. This allows the possible donor a chance to visit the hospital and meet the donor team. The evaluation is a full day outpatient appointment. If you don't live nearby, it might be possible to arrange some testing closer to your home. If testing is done outside of UW Health, it may take longer to complete. All non-directed donors must complete the evaluation at UW Health. The non-directed donor evaluation usually requires two separate visits.

The medical evaluation includes:

- Complete history and physical
- Chest X-ray
- EKG
- 24-hour urine collection
- Urinalysis with urine culture
- Spiral CT/CAT scan of your abdominal organs; including your kidneys
- Blood tests
- Kidney specialist evaluation (medical &/or surgical)
- Social Work/Health psychology evaluation
- Dietitian evaluation
- Living donor advocate evaluation
- Consultation with Transplant Nurse Coordinator
- Additional tests may be recommended based on medical history or test results

Blood tests include:

- A fasting glucose test and a HgbA1C level (screening for diabetes)
Routine chemistry and hematology panels
- Clotting studies
- Viral infection screening

Blood samples: are drawn for matching, other blood samples make sure you are in good health. The site where your blood is drawn might have a small amount of bruising or be painful.

Urine samples: includes a 24-hour urine collection for protein and creatinine clearance to tell us how well your kidneys are working. A urinalysis and a urine culture are also done. These tests can detect possible kidney problems or infection.

Chest x-ray and ECG (electrocardiogram): are done to check your heart and lungs.

A Spiral CT/CAT scan: to evaluate your kidneys and their blood vessels is done. This helps determine the health of your kidneys and their anatomy. It helps the surgeon decide which kidney would be easier on you to have removed. The CT also evaluates other organs in the abdomen to see if there are problems. **If you have any known allergies to contrast dyes, seafood or shellfish, be sure to tell us before having this test.** If you have any of these allergies, you may receive medicine before the test, or possibly an MRI scan may be done.

Consultation interviews with medicine, social work, psychology, nursing, and dietician: provides you as much possible information about what donating a kidney might mean for you in the short- and long-term. You and the team will talk about your history and current situation so as to be able to assess risks of donation.

After all the tests are finished, it takes about one week to collect the results. The donor team will review the information at our weekly donor committee meeting. More tests or consults with other doctors may be needed once the test results are reviewed. These often, but not always, can be done closer to your home.

“Matching,” and who can receive my kidney?

One main goal of transplant is to have the recipient’s body accept someone else’s kidney. Blood samples are used to identify good matches. Using blood samples we can identify blood type, antigens (also called HLA-tissue typing or genetic markers) and **Donor Specific Antibody (DSA)** levels. This information is used to find the best match for the person who needs the transplant.

Blood Type: There are four blood types: A, B, AB and O. A person’s **Rh factor (positive/negative)** does not matter for kidney transplant. The blood type between the donor and the recipient should be compatible. The chart below shows what a well-matched blood type is for each blood group.

If a RECIPIENT is Blood Type:	The DONOR must be Blood Type:
O	O
A	A or O
B	B or O
AB	A, B, AB or O

Antigens (also called genetic markers, tissue typing): Everyone is born with 46 special cells that make up the body’s genetic code. These cells are called chromosomes (DNA –genetic markers). It is the sixth chromosome that affects our immune system. The immune system controls the rejection process after a transplant. On this

sixth chromosome there are six specific antigens we match between a donor and recipient.

Though it is thought the more antigens matched the better, with today's improved anti-rejection medicines, matching antigens is not needed. Once the genetic markers are identified, the **Donor Specific Antibody (DSA)** levels can confirm a true match.

Donor Specific Antibody levels. Over a person's life time antibodies are formed as a protective process of the body. A blood test is done for all **recipients** to identify any antibodies against human antigens. We look at whether a recipient has antibodies that may react towards the donor. The **Donor Specific Antibody (DSA)** level measures any reaction a recipient has towards a donor. No reaction or a low reaction level is needed for a match.

In order to move forward with transplant, we look for a compatible blood type and an acceptable (low) DSA level between the donor and recipient. The DSA level will tell us what anti-rejection medicine or treatments the recipient needs before and after the transplant.

What if I am the Wrong Blood Type or the DSA levels are too high with my planned recipient? As shown on page 7, there are ways for willing kidney donors to donate for a planned recipient even if you don't match each other. UW Health participates in the National Kidney Registry program designed especially for this situation. When willing donors are **not** compatible with their planned recipient, this option is discussed.

The paired kidney exchange program will look for a match for you and your planned recipient with a different donor and recipient pair. If medically suitable, each donor

would donate his or her kidney to the other recipient. In this way, both recipients would get a matched kidney from an unrelated living donor. To find out more about the kidney exchange program you can go to www.kidneyregistry.org

Blood Type incompatible transplants are possible in certain situations. Because of added risks involved with this type of transplant, it should be considered only if necessary.

What if a problem is found during the donor evaluation?

During the donor evaluation, new information about your health may be identified. These findings may mean that you are not able to be a kidney donor. Further care may also be advised. You should follow up with your local doctor. The cost of this follow up care will be your responsibility. With your consent, records from the donor evaluation will be sent to your local doctor.

What does it cost to donate a kidney?

The recipient's insurance and/or Medicare will cover the donor pre-donation medical work up, the hospital stay, any doctor charges and a post-surgery clinic visit. If you receive any bills for the work up or hospital stay, please call the transplant office at **(608) 263-1384**.

Unfortunately, the recipient's insurance typically will **not** pay for travel costs and does not cover a donor's time off work. These are a donor's responsibility. If you are working, and have disability insurance, the time needed off from work to donate a kidney may be a covered benefit. Other employers may require you to use your sick time. You should check with your employer to see what benefits you have. Our Social Worker can assist you with planning for these expenses. A federal government

grant is now available to donor's to help offset some of these costs. Certain household income criteria must be met in order to qualify for this assistance.

If you live in Wisconsin, you may qualify for benefits under the Wisconsin Donor Tax Exemption Bill. Also, State of Wisconsin employees may qualify for special leave time under Act 125. The Social Worker or coordinator can give you more details about this.

Two Different Types of Donor Surgery - Open versus Laparoscopic ("Lap") Approach

Laparoscopic surgery is a less invasive type of surgery. Often the recovery time and pain are less. Special instruments and a video monitor are used to look at the kidney and blood vessels and to remove the kidney. Most donors are able to have their surgery done this way.

Although rare, a person who has had major abdominal surgery and/or has difficult left and right-sided kidney anatomy may not be able to have laparoscopic surgery. Your coordinator and doctor will talk to you about this if an open surgery is recommended.

The laparoscopic method uses 3-4 small incisions (about 1 inch each) on the abdomen to fit the instruments and the tiny camera. There is also one larger incision (about 3-4 inches) made below the belly button. This is where the kidney is taken out. Some donors are now able to have a laparoscopic surgery that uses only one incision (single port). Your surgeon will let you know if a single port laparoscopic surgery is possible. Laparoscopic surgery may take about 3 hours.

It is important to know that if problems occur during a laparoscopic surgery, the

surgeon may have to change to an open method to remove the kidney. This very rarely happens, but is a possibility.

Open surgery allows the surgeon to see the kidney and blood vessels directly. This surgery is used in patients with more complex kidney anatomy, such as several kidney blood vessels or who have had major abdominal surgery in the past. The open incision is about 8-10 inches in length. Open surgery will take about 2-3 hours.

The Hospital Stay

A pre-surgical clinic visit at UW Health is needed before the surgery and is typically done the day prior to surgery. If you do not live nearby, a hotel room will be provided the night before the surgery. On the day of surgery the donor will come to the hospital as an outpatient through the first day surgery clinic. Following surgery a donor is admitted to the hospital unit

Please bring comfortable loose fitting clothing and walking shoes to wear after surgery. Walking often helps prevent pneumonia and blood clots. It also helps restore normal bowel function.

Your nurse will get you up to walk about 6 hours after surgery. The average hospital stay is 1-3 days after the surgery.

Once discharged from the hospital you will recover at home for another 2-6 weeks. It may take as long as 4 to 6 weeks before you feel close to normal. We ask you to limit your daily routines, such as no driving, heavy lifting or strenuous activities. You should not lift more than 10 pounds or do strenuous activities/exercise for about 8 weeks. You should be able to start driving again when you are no longer taking any pain pills and can move without pain. Your surgeon will let you know when you can begin to increase what you are doing.

What long-term follow up is needed and recommended?

You will have a post-surgery check-up in the UW Health transplant clinic between 3 and 4 weeks after the surgery.

We will monitor your recovery and kidney function at 6 months, one year and two years following the donation. Our office will contact you and help obtain the needed information at these time points. **The follow up cost associated with the 6 month, one and two year visits are yours or your insurance providers' responsibility.**

We suggest that you see your local doctor every year for a complete check-up after donating a kidney. This exam should include a physical exam, a blood pressure check, blood creatinine level and urine testing to see how your kidney is working. The cost of your ongoing annual check-up will be your responsibility.

Hotel Accommodations

If you are coming from out of town, you and your family may want to stay in Madison the night before any clinic visits or the hospital

stay. The UWHC Housing Office, **(608) 263-0315**, has a list of nearby hotels from which to choose, as well as information about the Restoring Hope Transplant House.

A discount rate is given for any additional nights when you make the reservations through the hospital housing accommodations office - again we will cover the cost of the room the night before a donor surgery.

Parking and Validation

One visitor can have a parking pass validated before leaving the hospital. You can have this validated at the Admissions Desk/Information Desk during normal business hours.

Phone Numbers

Transplant office number: **(608) 263-1384**

Fax Number: **(608) 262-5624**

Main Hospital number **1-800-323-8942** (you will need to ask for the transplant office telephone number listed above or the department number you want to reach)

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 10/2017 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#5285

Living Kidney Donor Options

Any healthy and willing adult can be considered for living kidney donation.

Paired Exchange

Paired exchange is when the donor and intended recipient are not blood type and/or HLA compatible, therefore the pair is placed into a pool of pairs in order to find a blood type and HLA compatible match. The donor may or may not proceed to donation at the same time the recipient receives a kidney.

Compatible Share

Compatible share is when a donor and recipient are blood type and HLA compatible, but are given the opportunity to participate in paired kidney exchange to find a better kidney for the recipient.

Advanced Donation

Advanced donation is an option for a donor and recipient pair who are approved for paired kidney exchange. The donor proceeds with donation prior to the recipient receiving a kidney.

Voucher Program

The voucher program is an option for approved donors who want to donate a kidney now, in honor of a recipient who currently does not need a kidney transplant. The recipient would then have a 'voucher' for when they are in need of a living donor kidney via a paired exchange.

Direct Donation

Direct donation is when the donor has a recipient in mind and is able to donate a kidney directly to that recipient based on blood type and HLA compatibility. The donor can be related or unrelated to the recipient.

Non-Directed Donation (NDD)

Non-directed donation is when a donor wishes to donate a kidney but they do not have or know an intended recipient.