

KIDNEY TRANSPLANT PROGRAM



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SECTION 1

WELCOME

Beaumont's Kidney Transplant Program was established in 1972. We are looking forward to working with you on your journey to a kidney transplant and a healthier life.

Our team includes physicians, surgeons, nurse coordinators, social workers,

SECTION 2

YOUR KIDNEYS

There are two kidneys that are located below your ribs in the back of your abdomen. They lie on either side of the spine. Adult kidneys weigh about four to six ounces each.

The kidney performs several essential jobs to maintain health.

Some of these functions include:

- eliminating waste products from the body
- controlling fluid balance
- maintaining acid-base balance
- maintaining electrolyte balance (electrolytes include calcium, phosphorus, sodium, chloride and potassium)
- producing the hormone that controls blood pressure
- producing the protein that stimulates the production of red blood cells

KIDNEY FAILURE

When the kidneys fail, the normal kidney functions and delicate balances are disturbed. As a result, the kidneys cannot remove waste products, maintain fluid balance or make enough red blood cells. Electrolyte levels become disturbed and patients often feel more and more tired and sick.

Kidney failure may be caused by several conditions, including, but not limited to:

- diabetes
- hypertension (high blood pressure)
- polycystic kidney disease
- genetic conditions (such as being born with a single kidney)
- long term use, or excessive use of medications, such as nonsteroidal anti-inflammatory drugs (NSAIDs)
- conditions that damage the glomeruli (filtering units) in the kidney, such as IgA nephropathy, glomerulonephritis, glomerulosclerosis, lupus and amyloidosis

SECTION 3

TYPES OF KIDNEY TRANSPLANTS

Kidneys that are transplanted can be obtained from a living donor (living-related or living non-related) or a deceased donor.

Living-related kidney transplant

A living-related donor is blood related to the transplant recipient. This may be a mother, father, sister, brother, son, daughter, cousin, aunt or uncle.

Patients who have the option of a living-related kidney transplant have certain advantages:

SECTION 4

EVALUATION FOR KIDNEY TRANSPLANT

If your physician or staff from your dialysis center thinks that you may benefit from kidney transplant, a referral will be sent to our transplant center. You may also call for an appointment. Your medical history will be reviewed by the transplant nurse coordinators and Advanced Practice Providers (APPs), who will reach out to you to discuss your health and personal information and to provide you with details regarding your evaluation appointment.

Prior to your appointment, you and your significant others will be provided instructions about how to access the online Beaumont kidney transplant education video. This provides an overview of the different phases of the transplant process and information that will be reinforced during your appointment. It reviews what will be expected from you and your support team.

We encourage you to write down questions related to transplant to bring to your appointment.

Bring your medical insurance cards to your appointment. If you receive benefits through Medicare or Medicaid, bring those cards as well. This information will be reviewed with you to help prevent future billing problems.

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Evaluation for transplant multidisciplinary team:

- Transplant nephrologist: A doctor who specializes in kidney disease and kidney transplantation. The nephrologist will review your history and will complete a physical exam.
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SECTION 5

SELECTION FOR TRANSPLANT

Transplant centers are required to have selection criteria for transplant candidates. Some of these criteria are mandated by the United Network for Organ Sharing, and others are transplant center specific. The reason for the criteria is to ensure safety for the potential transplant recipient. (TR)-43.0cy17.3 (e) JETEMC /P 4 (t7(a f)9.5 (o)4 (r

- You receive half of your chromosomes (genetic material) from each parent. Because of the way we inherit genes from our parents, it is possible for one sibling to match all six antigens (also referred to as HLA identical or a perfect match) with another sibling. Among siblings, there might either be a three-antigen match (haplotype) or a zero-antigen match (complete mismatch). Parents and natural (not adopted) children will always match three antigens (haplotype).
- The ideal match is an identical twin. Since not many of us have identical twins, the next best match is a living-related, six-antigen match. However, many patients have a successful transplant with a zero-antigen match.

Human Leukocyte Antigen (HLA) typing:

SECTION 6

FINANCIAL CONSIDERATIONS

A transplant financial representative will meet with you to discuss your individual insurance coverage and possible out-of-pocket expenses.

Transplant medications are expensive, so it is important to have a financial plan

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SECTION 7

PSYCHOSOCIAL SUPPORT

Having an adequate support team is required for approval for transplant. This can be family, friends or members of your community.

Support persons need to be actively engaged throughout the process and be willing and able to assist you as needed. In addition to emotional support, you may need assistance with transportation, help in carrying out medical or psychosocial treatment plans and assistance with care in the home.

TRANSPLANT WAITING LIST

The transplant team will review your medical and psychosocial testing to decide if you are eligible to be placed on the kidney transplant waiting list. Some contraindications to transplant may include (but are not limited to):

- severe underlying heart or lung disease
- active malignancy or aggressive kidney cancer determined to be out of criteria for transplant
- elevated body mass index (BMI)
- inadequate support team (family or friends who can help you after your transplant)
- medical non-compliance
- poor functional or nutritional status
- lack of insurance
- behavior patterns or psychiatric illness that are barriers to compliance with care of the transplant

If you are determined to be a candidate for kidney transplant, your name will be added to the deceased donor transplant waiting list. A waiting list for transplant is necessary because there are more people waiting for a kidney transplant than available organ donors. A person's waiting time on the list is determined by several factors. Some patients may wait five or more years for a transplant.

The waiting list is managed by the Organ Procurement and Transplantation Network

When a deceased donor kidney becomes available, the donor information in the UNOS national computer matches the information with the patients on the waiting list.

While on the waiting list, it is important to closely follow the transplant team's recommendations to optimize your condition for transplant. You will be assessed by the transplant staff at least once a year. Frequency of visits will be determined by clinical condition.

While you wait for a kidney transplant, updated testing may be required. Your transplant nurse coordinator will let you know when you require additional testing.

It is crucial that you keep open communication with the transplant team during this process. It is essential that you notify the clinic of changes in address or telephone numbers. You or your support team must notify the clinic if:

- you have a change in your medical condition
- you are hospitalized at an outside hospital
- you need to make any changes in your medical insurance
- you have a change in your support team
- you plan to travel

Failure to communicate with the transplant team may affect your candidacy for transplant.

Maintain your health by staying as active as possible, getting adequate nutrition (or if needed, engaging in weight loss efforts), avoiding toxic substances and staying engaged in recommended emotional support plans.

HOLD STATUS

If there is a new medical problem or concern for non-adherence to pre-transplant requirements while on the wait list, your status may be changed to "on hold". During this time, you are ineligible for offers for a kidney transplant. However, you will continue to accumulate waiting time.

The transplant team will inform you about what needs to be completed to be reactivated. If the requirements cannot be met, you may be removed from the kidney transplant wait list.

SECTION 8

DONOR CONSIDERATIONS

Donors with risk criteria for hepatitis B, hepatitis C or Human Immunodeficiency Virus (HIV) according to the 2020 U.S. Public Health Service (HHS) Guidelines for the Safe Use of Blood and Blood Products (42 CFR 171.16) and the 2020 U.S. Public Health Service (HHS) Guidelines for the Safe Use of Blood and Blood Products (42 CFR 171.16) and the 2020 U.S. Public Health Service (HHS) Guidelines for the Safe Use of Blood and Blood Products (42 CFR 171.16)

NOTIFICATION OF POTENTIAL TRANSPLANT

The call that a kidney is available could happen at any time of day or night. This call will come from a service that Beaumont Transplant contracts to assist with organ offers. It is important to know that you will not recognize the number of the person who is calling with the organ notification. You should answer all calls, even those from out of state numbers.

Due to time constraints associated with transplant, it is crucial that you check your messages frequently and return any missed calls promptly. Failure to do this may





SECTION 11

PREPARATION FOR DISCHARGE

While you are in the hospital, the nursing staff, transplant physicians and surgeons will provide education to you about caring for yourself at home.

In preparation for discharge, you and your support team will meet with several different team members who will provide you with additional education about how to care for yourself and your new kidney. These team members include a transplant nurse, transplant dietitian and transplant pharmacist. You will also receive written educational materials to assist you with keeping yourself and your transplanted kidney healthy.

The transplant social worker will assess your situation for any discharge needs.

A Continuing Care nurse will determine if you need any special equipment or help at home.



SECTION 14

DEFINITIONS OF TERMS

Acute rejection: Acute rejection can happen at any time after a transplant.

During an acute kidney transplant rejection episode, the serum (blood) creatinine rises. This can usually be treated by taking a higher dose or different type of immunosuppressive medicine until the creatinine returns to a baseline.

Antibody: Product of the immune system that helps the body fight infections and foreign substances.

Antigen: The “marker” that stimulates the body to produce antibodies.

Antirejection medicines: These drugs are taken every day through the life of the transplanted kidney. They are also known as immunosuppressive medicines. They help prevent the immune system from rejecting the new kidney.

Bladder: The part of the urinary tract that receives urine from the kidneys and stores it until you urinate.

Blood typing: A blood test that indicates blood group. There are four blood types: O, A, B and AB. The recipient’s blood type needs to be compatible with the donor’s blood type to receive the kidney transplant.

BUN: BUN stands for Blood Urea Nitrogen, a waste product from the kidney. Your BUN value is an indication of waste products being created by the body.

Chronic rejection: Chronic rejection is a process that may develop over months or even years. During this process, the creatinine slowly rises. There is no known treatment for chronic rejection however, adjusting medicines may slow the damage to the kidney.

Creatinine: A product of muscle metabolism. Creatinine level serves as a very good indicator of kidney function.

Crossmatching: A test

Diastolic blood pressure: The bottom blood pressure number. Diastolic is when the heart relaxes and refills with blood.

End Stage Renal Disease (ESRD): Occurs when the overall function of the kidneys declines to less than 10% of normal. When this happens, treatment, such as dialysis or a transplant, is needed to replace lost kidney function and support life.

Graft: The transplanted kidney is also sometimes referred to as a graft.

Human Leukocyte Antigen (HLA): A marker found on white blood cells that helps determine compatibility of the donor and transplant recipient.

Hypertension: Another word for high blood pressure.

Immunosuppressive medicines: These medications are taken daily to help prevent the transplant recipient's immune system from rejecting the new kidney. Also known as antirejection medicine.

Intravenous (IV): A small catheter (tube) placed into a vein; refers to the fluids and medicines that are injected into a vein through a needle or catheter.

Kidneys: Two bean-shaped organs

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