BRIGHAM AND
WOMEN'S HOSPITAL
A Teaching Affiliate of Harvard Medical School

Guide to Living Kidney Donation

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A Teaching Affiliate of Harvard Medical School

www.brighamandwomens.org/transplantsurgery

Kidney Transplant Program
75 Francis Street
Boston, MA 02115
Tel: 617.732.6866
Fax: 617.732.7832

Dear Potential Donor,

It is our pleasure to welcome you to the Kidney Transplant Program at Brigham and Women's Hospital. We recognize that the evaluation process can be a challenging experience, which is why we are committed to providing you all the necessary information while working with you closely throughout the entire process.

Your work-up consists of comprehensive medical, surgical, and psychosocial assessments. The medical evaluation will be done by our Donor Nephrologist and you may need to be seen by other specialties; your surgical evaluation will be done by one of our Transplant Surgeons. Additionally, you will meet with our Transplant Social Worker to ensure that you are emotionally prepared to undergo a major surgical procedure and recover successfully after donation, as well as have the appropriate social support to do so. Our Living Donor Nurse Coordinator will serve as your main point of contact during the evaluation period. He/She will be responsible for coordinating your tests and appointments, and relaying all health information to you. In addition, an independent donor advocate (IDA) will be available to assist you during the evaluation process. The IDA will be able to assist you with obtaining and understanding information regarding the consent process, evaluation process, surgical procedure, medical and psychosocial risks and the benefit and need for follow-up. The information obtained during your evaluation will be confidential and not shared with your recipient or recipient's family. The health information obtained during your evaluation will be subject to the same regulations as all records, and could reveal conditions that we must report to local, state or federal public health authorities.

Upon completion of the evaluation, you will receive notification of whether or not you are a candidate for living kidney donation. The Kidney Transplant Program may find you as an unsuitable donor match. In such cases, you could be evaluated by another transplant program that may have different selection criteria.

Please look over this packet in its entirety to fully understand the commitment and requirements that are involved in becoming a living kidney donor. If at any time during the process you have questions and/or concerns, please contact our staff directly.

Sincerely,

Stefan Tullius, MD, PhD
Program and Surgical Director
Kidney/Pancreas Transplant Program

Anil Chandraker, MD
Medical Director
Kidney/Pancreas Transplant Program

CONTENTS

Members of the Living Kidney Donor Team

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Living Donor Coordinator: Kristen Pelletier, RN
Brigham and Women's Hospital
Kidney/Pancreas Transplant Program
Tel: 617.732.8683
Fax: 617.582.6167
Office Hours: Tuesday, Thursday, Friday

Post Living Donor Coordinator: Sheila Patterson, RN
Brigham and Women's Hospital
Kidney/Pancreas Transplant Program
Tel: 617.525.8239
Fax: 617.582.6167

Donor Surgeons: Dr. Sayeed Malek & Dr. Sanjaya Kumar
Brigham and Women's Hospital
Division of Transplant Surgery
Tel: 617.732.6446
Fax: 617.582.6167

Donor Nephrologists: Dr. Alice Sheridan, Dr. Sushrut Waikar, & Dr. David Charytan
Brigham and Women's Hospital
Department of Renal Medicine
Tel: 617.732.6383

Social Worker: Annette Pimenta, LICSW
Brigham and Women's Hospital
Kidney/Pancreas Transplant Program
Tel: 617.732.6480
Fax: 617.582.6167

Financial Coordinator: Valerie Moals-Phillips
Brigham and Women's Hospital
Kidney/Pancreas Transplant Program
Tel: 617.525.7415
Fax: 617.582.6167

Social Worker: Barbara Levine, LICSW
Brigham and Women's Hospital
Kidney/Pancreas Transplant Program
Tel: 617.732.7882
Fax: 617.582.6167

Independent Kidney Living Donor Advocate (IDA) | 2

The Independent Kidney Living Donor Advocate (IDA) serves as an advocate for you and guarantees that your rights as a living donor are protected. This person is empowered with full veto-authority if they believe donation is ill-advised. The IDA is employed by Brigham and Women's Hospital, but is not a member of our Transplant Team –he/she is independent. Your IDA is available throughout the donation process, including pre-donation, inpatient, and post-donation, should you have any questions or concerns.

Specifically, the IDA ensures that you, as a donor, are informed of your right to opt out of donation – in a protected and confidential way – at anytime during the process. They ensure that the reasons for opting out remain private and are not communicated with the recipient family or the Transplant Team, unless you want them to be. Additionally, the IDA makes certain that your decision to donate was not influenced by coercion.

The IDA is not involved with the recipient evaluation, and is completely independent of the decision to transplant a potential recipient. The IDA is a knowledgeable advocate for you, with the goals of promoting your best interests and your rights, and assisting you in obtaining and understanding information regarding donation. This person demonstrates current knowledge of living organ donation, transplantation, medical ethics, and informed consent.

Your IDA is: Robin Swartz, LCSW

Call Care Coordination:
Tel: 617.525.9780
Pager: 617.732.5500 #33385
Social Work Services
75 Francis Street
Brigham and Women's Hospital
Boston, MA 02115

Disclosures 3

As a potential living kidney donor, you need to be aware of the following disclosures. If you have any questions, please discuss them with your Living Donor Nurse Coordinator (tel: 617.732.6866).

- ☐ Brigham and Women's Hospital will take all reasonable precautions to provide confidentiality for the donor and recipient.
- ☐ It is a federal crime for an organ to be sold or paid for by an item of value, such as property or vacations.
- ☐ Recovery hospitals must provide an independent donor advocate (IDA).

Healthcare Information Confidentiality:

- Health information obtained during the donor evaluation will be confidential and not shared with your recipient or recipient's family.
- Health information obtained during the donor evaluation is subject to the same regulations as all records, and could reveal conditions that we must report to local, state or federal public health authorities.
- Any infectious disease or malignancy relevant to acute recipient care discovered during your first 2 years of post-operative follow-up care:
    - will be released to you
    - may need to be reported to local, state or federal public health authorities
    - will be disclosed to the recipient's transplant center
    - will be reported through the Organ Procurement and Transplantation Network (OPTN) Improving Patient Safety Portal

Option to Opt-Out:

- As a potential donor, you have the right to decline to donate at any time. Additionally, you may discontinue the donor consent or evaluation process if you wish; you may do so in a way that is protected and confidential.

Availability of Alternative Treatments for Recipient:

- A deceased donor kidney may become available for the recipient before the donor evaluation is completed for the living donor
- The recipient may remain on dialysis
- As donor information is confidential, so is the recipient's information. There may be risk factors for increased morbidity and mortality that are not shared with the potential donor.

Post-Donation Kidney Function: How might the donor be affected by Chronic Kidney Disease (CKD) or End Stage Renal Disease (ESRD) in the future:

- On average, donors will have a 25-35% permanent loss of kidney function at donation.
- Baseline risk of ESRD is not greater in donors than in a similar population of people who are not donors.
- When chronic kidney disease (CKD) or end-stage renal disease (ESRD) occurs, CKD generally develops in mid-life (40-50 years old) and ESRD generally develops after age 60. The medical evaluation of a young potential donor cannot predict lifetime risk of CKD or ESRD.
- Donors may be at a higher risk for CKD if they sustain damage to the remaining kidney. The development of CKD and later progression to ESRD may be more rapid with only one kidney.
- Dialysis is required when reaching ESRD.
- Current practice is to give priority to living donors who develop end stage renal disease and are listed for kidney transplant.

Question and Answer 4

What is living donation?

Living donation takes place when a living person donates an organ to another person.

Who can be a living donor?

Living donors should be in good overall physical, emotional and mental health and free from uncontrolled high blood pressure, diabetes, cancer, HIV/AIDS (Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome), hepatitis, and organ diseases. Most living donors are older than 18 years of age and compatible with the intended transplant candidate. Since some donor health conditions can prevent the donation and transplant from being successful, it is important that you share all information about your physical and mental health.

You must be fully informed of the risks involved and complete a full medical and psychosocial evaluation. Your decision to serve as a donor should be completely voluntary and free of pressure or guilt.

Is there Payment or Reimbursement for becoming a Living Donor?

A living donor cannot be paid for the donated organ because it is illegal under the National Organ Transplant Act of 1984. However, in certain circumstances, living donors may receive reimbursement for certain expenses related to the donation process. Talk to a transplant social worker or transplant financial coordinator for more information.

How can I be a living kidney donor to someone I know?

Your first step is to speak with your Transplant Nurse Coordinator, who can give you additional information about living donation and help you get started. If you live far away from the transplant center, you can speak to the nurse coordinator over the phone and he/she can coordinate your testing locally.

To donate a kidney, you must be in good health and have normal kidney function. If the donor meets the criteria for donation, testing will be required to check for further tissue compatibility (cross-matching and tissue typing), as well as physical examinations and psychological evaluation. The donor should make the decision voluntarily and free from any pressure.

Before surgery, the donor will receive education and counseling to help prepare mentally and emotionally for the donation and recovery. If the donor has questions, the transplant team can help.

Once all the testing has been successfully completed, the operation is scheduled. The donor and recipient are in adjacent operating rooms. The kidney is carefully removed and transplanted into the recipient. Typically, the surgery takes about three to five hours with time in the recovery room afterwards for observation.

When a kidney is removed from a living donor, the donor's remaining kidney takes over the work of both kidneys. Studies show that long term health is not usually negatively impacted.

What are my options if the recipient does not have the same blood group as the donor?

For those who are blood group incompatible, there are options such as the Organ Procurement and Transplantation Network (OPTN)/United Network for Organ Sharing's (UNOS) Kidney Paired Donation Program (OPTN/UNOS KPD) and the National Kidney Registry (NKR). The KPD Program involves two pairs of potential living kidney donors and transplant candidates who are not compatible. The two candidates "trade" donors so that each candidate receives a kidney from a

compatible donor. In some cases, this type of exchange has involved multiple living kidney donor/transplant candidate pairs and centers.

What are my options if the recipient has an 'activated immune system' and may reject the transplant?

Some patients have a so-called sensitized or 'activated immune response' against donor organs. We offer a special technique, called *plasmapheresis,* which acts on the recipient's immune system to allow a successful organ transplant in these situations. In very rare instances, we can also do successful organ transplants if donor and recipient are blood group incompatible.

Who pays for living donation?

Living donors are not responsible for costs related to their pre-transplant evaluation process. The hospital's Kidney Acquisition Fund (a Medicare-regulated fund) covers all kidney transplant donor evaluation charges at the current geographically adjusted Medicare allowable rate of reimbursement. The cost of the living donor's surgery and post-operative care are generally paid for by the recipient's health insurance. These insurances and funds *do not cover* related costs like travel, parking, and room and board. These insurances also do not cover the donor's discharge pain medication prescription.

Travel expenses and time out of work are not covered. Routine medical care is not covered (i.e. Pap smear, mammogram, colonoscopy). Also, if during the donor evaluation there are abnormal results that need follow-up, this may need to go through the donor's insurance if it is not seen as part of the donor evaluation. Our transplant financial coordinator, Valerie Moals-Phillips, can answer any questions you have about the cost of donation. The transplant social worker and donor coordinator can talk with you further about concerns related to travel expenses and lost wages.

What are the different types of surgery?

A kidney can be removed by the minimally-invasive technique or open surgery. The minimally-invasive technique involves three small incisions to introduce the special instruments that dissect the kidney. There is another incision approximately three inches to assist removal of the kidney.

We currently use the following method:

- laparoscopic hand assisted retro-peritoneal donor nephrectomy

Seldom do donors need an open surgery due to previous surgeries or anatomical variations. Very rarely, scheduled minimally-invasive donations must be converted to the open technique during the surgical process. The open technique involves a five to seven inch incision and is rarely used at Brigham and Women's Hospital.

How long will I be in the hospital?

The average stay for the donor is two to three days after surgery. However, each donor recovery can vary and most importantly, we want to make sure that the donor feels well when leaving the hospital. During the hospital stay, the transplant team will monitor the donor's pain level, hydration, and ability to tolerate fluids/food, as well as emptying of the bladder. An important part of the recovery process includes the patient being able to walk soon after surgery.

How long does it take to recover and go back to work?

You should allow four to six weeks for recovery. The goal is to be back to normal health within two to three months. Most donors are back to work at four to six weeks, but this can vary depending on the person and the type of job. You will not be permitted to drive for one week; if you are still taking narcotic analgesics, it will be longer than one week. You can not lift, push or pull over 20lbs for 12 weeks after donation. This may affect your ability to return to work.

Source: United Network for Organ Sharing (UNOS), Living Donation: Information you need to know

Evaluation and Donation Risks | 5

The following surgical, medical, psychosocial, and financial risks are associated with living kidney donation. These risks may be temporary or permanent and include, but are not limited to the following:

Inherent Risks Associated With Evaluation for Living Donation:

- Allergic reactions to contrast
- Discovery of reportable infections
- Discovery of serious medical conditions
- Discovery of adverse genetic findings unknown to the donor
- Discovery of certain abnormalities that will require more testing at the donor's expense or create the need for unexpected decisions on the part of the Transplant Team

Potential Medical or Surgical Risks:

- Death
- Scars, pain, fatigue, and other consequences typical of any surgical procedure
- Decreased kidney function
- Abdominal or bowel symptoms such as bloating and nausea and developing bowl obstruction
- Kidney failure and the need for dialysis or kidney transplant for the donor
- Impact of obesity, hypertension, or other donor-specific medical condition on the health and life span of the potential donor
- Injury to bowel or other abdominal organs(i.e. spleen, liver)
- Pneumothorax
- Incisional hernia
- Wound infection
- Neuropathy

Potential Psychosocial Risks:

- Problems with body image
- Post-surgery depression or anxiety
- Feelings of emotional distress or bereavement if the transplant recipient experiences any recurrent disease or in the event of the transplant recipient's death
- Effect of donation on the donor's lifestyle
- Effect of donation on the donor and recipient's relationship, or other relationships

Potential Financial Risks:

- Personal expenses of travel, housing, child care costs, and lost wages related to donation are not reimbursed; however, resources might be available to defray some donation-related costs
- Need for life-long follow-up at the donor's expense
- Need for donor to maintain health insurance
- Loss of employment or income
- Negative impact on the ability to obtain future employment
- Negative impact on the ability to obtain, maintain, or afford health, disability, and life insurance
- Future health problems experienced by living donors following donation may not be covered by the recipient's insurance

Evaluation Process 6

The Living Donor work-up consists of comprehensive medical, surgical, and psychosocial evaluation. Before an appointment is scheduled, all potential donors are screened over the phone to ensure there are no absolute contraindications for donation (reasons why someone cannot safely be a donor).

Absolute Contraindications:

- ☐ Both less than 18 years of age and years and mentally incapable of making an informed decision
- ☐ High blood pressure and age ≤50 years
- ☐ Uncontrollable hypertension or history of hypertension with evidence of end stage organ damage
- ☐ Diabetes mellitus (DM), or diabetes mellitus in both parents
- ☐ Gestational DM or pre-clampsia plus age <50 years
- ☐ Early onset gout (<30 male and pre-menopausal in females) and first degree relative with ESRD
- ☐ Intrinsic renal disease
- ☐ History of blood clotting problems
- ☐ Microalbuminuria ≥30mg/24 hours or greater
- ☐ HIV/AIDS, Hepatitis B Virus (HBV), Hepatitis C Virus (HCV) infection or evidence of other acute symptomatic infection (until resolved)
- ☐ Hereditary nephritis
- ☐ Coronary artery disease
- ☐ Symptomatic valvular disease
- ☐ Chronic lung disease with impairment of oxygenation or ventilation
- ☐ Urologic abnormalities of donor kidney
- ☐ Peripheral vascular disease
- ☐ Medications causing kidney dysfunction
- ☐ Obesity (Body Mass Index >30kg/m^2)
- ☐ Gastric Bypass
- ☐ Positive Sickle Cell Trait
- ☐ Uncontrolled psychiatric illness*****

*****It is important to identify donors with anxiety, depression or other mental conditions that are not being appropriately treated, which may make them unsuitable as living donors

Relative Contraindications: some patients in these categories may be considered, depending on donor motivation and recipient need

- ☐ Age 18-25
- ☐ Distant history of cancer
- ☐ Kidney stones
- ☐ Psychiatric issues
- ☐ Renovascular disease
- ☐ Prior valve surgery
- ☐ Moderate cardiac valvular disease
- ☐ Mild sleep apnea
- ☐ Hypertension controlled with one medication

Please note that if the initial phone screen does not reveal any contraindications to kidney donation, the patient will move forward with a psychosocial and medical evaluation.

Medical Evaluation: The goals of the medical evaluation are to:

- Assess the immunologic compatibility of the donor to the recipient;
- Assess the general health and surgical risk of the donor including screening for conditions that may predict complications from having one kidney in the future;
- Determine if there are diseases present that may be transmitted from donor to recipient;
- Assess the anatomy and function of the kidneys.

A dedicated donor nephrologist will conduct a medical evaluation for all living donors. If one year passes by and transplantation has not occurred and the donor is still deemed suitable for transplant, a telephone screening by the living donor coordinator will be performed to assess for any new medical conditions and medications. Additionally, basic lab work will need to be repeated. Patients may need to be seen at our transplant center again at one year if there have been significant changes in medical status or conditions. Potential donors are evaluated for conditions that are contraindications to donation. At this time, these conditions include diabetes, HCV, HIV, cancer, and vascular disease. Lastly, the evaluation needs to assess the risk of transmission of disease to the recipient that would negatively impact his/her life. The medical evaluation is considered current for 2 years; if 2 years passes and the transplant has not happened, the patient will be reviewed again by the multidisciplinary team who will determine what follow-up and re-evaluation testing is needed.

a. Donor typing to determine the risk for acute transplant failure

- ABO blood group typing x2
- Human Leukocyte Antigen (HLA) typing
- Cross match

b. <u>General and Physical Examination</u> <u>- conduct a general exam, as well as a history, with a focus on the following:</u>

- Family history of kidney disease, coronary artery disease and cancer
- Diabetes
- Hypertension (high blood pressure)
- Coronary artery disease
- Gestational diabetes
- Clotting disorders or deep venous thrombosis
- Use of Non-steroidal Anti-inflammatory Drugs (NSAID's) (e.g. ibuprofen, indomethicin)
- Urinary tract infections
- Nephrolithiasis (kidney stones)
- Chronic infections
- Acute or chronic kidney injury
- Cancer
- Heart disease
- Lung disease

<u>Physical Examination to include:</u>

- Blood pressure x 2 (perform a 24-hour blood pressure monitor if clinically indicated)
- Height and weight
- Calculated Body Mass Index (BMI)
- A search for evidence of heart, lung, liver, and blood vessel disease, and abnormal lymph node and large spleen

Medical Psychological Evaluation and Social History should include questioning about:

- Alcohol intake
- Smoking history
- Substance Abuse and history
- History of mental illness and treatment used

c. General Laboratory Tests

- Complete Blood Count (CBC) with platelet count
- Prothrombin time / Partial thromboelastin time
- Fasting lipids, electrolytes, Blood urea nitrogen (BUN), creatinine, calcium, phosphate, uric acid, (Liver Function Tests) LFTs
- Sickle cell test for African Americans
- Human Chorionic Gonadotropin (HCG) quantitative pregnancy test for women of child-bearing age

d. Cardiovascular – Heart and Blood Vessel tests

- Chest x-ray
- Electrocardiogram (EKG)
- Echocardiogram (ECHO) or Exercise Tolerance Test (ETT) as indicated by history and physical examination
- Pulmonary function tests for smokers as appropriate for perioperative management of asthma or other clinical findings
- Vascular duplex or angiography, if clinically indicated for cerebral nervous system, gastrointestinal or peripheral limb symptoms

e. Renal Focused Evaluation

- Urinalysis: look for protein and cells in the urine
- Perform urine culture
- Protein excretion: 24 hour urine for protein and microalbumin excretion two different times.
- Serum creatinine
- Glomerular filtration rate (GFR) measurement-clearance testing, 24 hour urine for creatinine clearance measurement must be done two different times. If consistent low results, a nuclear glomerular filtration rate test may be required. Calculated GFR measurements using the serum creatinine are not felt to be adequate.
- Screen for Polycystic Kidney Disease (PKD) as indicated by family history: Ultrasound if over 30 years old; genetic testing if younger than age 30 is required. If this applies to you, please discuss with your Transplant Team.

f. Metabolic Focused Evaluation

- Fasting blood glucose; HgbA1C (oral Glucose Tolerance Test if clinically indicated)
- Uric acid
- Fasting lipid profile (Cholesterol, Triglycerides, HDL Cholesterol, LDL Cholesterol)
- Determine the number of elements of the metabolic syndrome present, consent for risk $\geq$ risk factors
- If the risk of diabetes is higher than the general population by presence of a first degree relative with diabetes or the presence of metabolic syndrome characteristics but the prospective donor does not meet the definition of diabetes, they should be counseled that they are at an increased risk to develop diabetes.

g. Infection (all but CMV/EBV/HBsAB/Stongyloides will be repeated within four weeks prior to the date of surgery)

- CMV
- EBV (Epstein Barr Virus) antibody
- HIV 1, 2 (human immunodeficiency virus)
- HBsAG (hepatitis B surface antigen)
- HBcAB (hepatitis B core antibody)
- HBsAB(hepatitis B surface antibody)
- HCV (hepatitis C test)
- RPR (for syphilis)
- Strongyloides

Geographically/environmentally determined testing:

- Tuberculosis
- Toxoplasmosis (depending upon exposure risk)
- Geographically determined testing
- Coccidiomycosis
- Schistosomiasis
- Malaria
- HHV-8
- West Nile
- HHV-6
- Trypansoma cruzi

h. Cancer Screening: Conduct a cancer screening which attempts to determine if the donor does not need both kidneys to help with tolerance of anti-cancer treatment and that the donor does not have a tumor that would be transferred to the recipient.

Testing to be performed depending upon gender, age or family history includes:

- Pap within 3 years for women age 21 and older. Women ages 30-65 should have HPV and Pap co-testing every 5 years or a Pap test alone every 3 years. Women with certain risk factors may need to have more frequent screening or to continue screening beyond age 65.
- Mammogram within 1 year for all women over 40 years old or according to family risk
- PSA for all men over 50; for African American men over 40 or if from a high-risk family
- Colonoscropy for all donors over 50 years old or younger according to family history
- During a telephone screening with the Living Donor Nurse Coordinator, potential donors will be asked about a history of melanoma in 2 or more blood relatives, atypical moles and actinic keratoses. If they have a history of the aforementioned conditions, donors meeting selection criteria will be referred for skin cancer screening by a dermatologist.
- Low dose chest computerized tomography (CT) scan will be required for potential donors age 55-74, with no signs of lung cancer who are active or former smokers with a 30 pack year history to screen for lung cancer. (A pack year is the equivalent of 1 pack of cigarettes per day per year. 1 pack per day for 30 years or 2 packs per day for 15 years would both be 30 pack-years).

Surgical Evaluation: The donor will meet with one of the Transplant Surgeons to determine which kidney is the safest to remove and which kidney has the best function. Almost all donors (right and left) are done using a laparoscopic hand-assisted technique. The kidney with the best function should preferentially remain with the donor. An assessment to determine whether the kidneys are of equal size or have masses, cysts, stones or other anatomical defects and to determine which kidney is more anatomically suitable for transplantation.

a. A CT angiogram will help determine which kidney will be removed.
b. An abdominal ultrasound may be necessary to evaluate the liver for fatty infiltration and unexpected abnormalities of the liver, pancreas and spleen.
c. A Renal function scan may be required to help determine which kidney will be removed.

Psychosocial Evaluation: The potential donor can stop the evaluation or donation process at any time if he/she is uncomfortable about continuing. The medical team will inform the potential donor that if this occurs, the medical team can, if the potential donor prefers, state that the potential donor is not an acceptable candidate, without providing specific reasons for this decision. The psychosocial evaluation will be done by a licensed mental health professional, likely a licensed clinical social worker or psychiatrist experienced in the transplant process. The evaluation is deemed current for 2 years; if 2 years passes and the transplant has not happened, the patient will be reviewed again by the multidisciplinary team who will determine what follow-up and re-evaluation testing is needed. The goals of the psychosocial evaluation are:

a. To identify and appraise any potential risks for poor psychosocial outcome, including risks related to the individual's psychiatric history or social stability
b. To ensure that the prospective donor comprehends the risks, benefits, and potential outcomes of the donation for herself or himself and the recipient, and that the donor understands that there is little data on what the long-term psychosocial outcomes are.
c. To assess the donor's capability to make the decision to donate, and his/her ability to cope with the major surgery and related stresses.
d. To assess donor motives and the degree to which the donation decision is made free of guilt, undue pressure, enticements or coercions, or impulsive responses.
e. To review lifestyle circumstances (e.g. employment, family relationships) that might be affected by donation.
f. Ensure that the prospective donor's cognitive status and capacity to comprehend information are not compromised and do not interfere with judgment, and determine risk for exploitation.
g. Establish the presence or absence of current and prior psychiatric disorder, including but not limited to mood, anxiety, substance use and personality disorders. Review current or prior therapeutic interventions (counseling, medications); physical, psychological, or sexual abuse; current stressors (e.g. relationships, home, work); recent or significant losses; and chronic pain management. Assess repertoire of coping skills to manage previous and current life or health related stressors.
h. Review the nature and degree of closeness (if any) to the recipient, (i.e. how the relationship developed); and whether the transplant would impose expectations or perceived obligations on the part of either the donor or recipient.
i. Explore the rationale and reasoning for volunteering to donate, i.e. the "voluntariness," including whether donation would be consistent with past behaviors, apparent values, beliefs, moral obligations or lifestyle. Determine whether the potential donor's decision would be free of coercion, inducements, ambivalence, impulsivity or ulterior motives (e.g. to atone or gain approval, to stabilize self-image, or to remedy a psychological malady).
j. To identify any factors that warrant educational or therapeutic intervention before donation can proceed.

k. Donor's knowledge, understanding, and preparation: explore the prospective donor's awareness of the following:
    - any potential short and long-term risks for surgical complications and health outcomes, both for the donor and the transplant candidate
    - recovery and recuperation time
    - availability of alternative treatments for the transplant candidate
    - financial ramifications (including possible insurance/life insurance risks)

l. Assess the prospective donor's understanding, acceptance and respect for the specific donor protocol, e.g. willingness to accept potential lack of communication from the recipient and the donor's willingness to undergo future donor follow-up.

m. Determine that support systems are in place and ensure a realistic plan for donation and recovery, with adequate social, emotional, and financial support and resources. Determine whether the prospective donor is financially stable and free of financial hardship; has resources available to cover financial obligations for expected and unexpected donation-related expenses; is able to take time away from work or established role, including unplanned extended recovery time; and has disability and health insurance.

n. The prospective donor should be advised that the information contained in the report will be subject to the same regulations as regular medical records and may not be additionally protected. In order to protect the donor, whenever possible, the more sensitive questions should be at the end of the psychosocial evaluation. Therefore, if the evaluator determines earlier in the evaluation that the individual is not an appropriate candidate, the more sensitive questions will not be asked and the answers will not appear in the report.

Donor Testing Schedule

The following are the tests required for kidney donation evaluation, which should be completed in two days time. ***Please note that you should be fasting when you do the 'Day 1' donor testing***. Also, 24 hour urine samples must be brought in the day the collection is completed and you will need to have your blood drawn with each 24 hour urine collection. Please note that routine screening (i.e. Pap smear within one year, mammogram in women greater than 40 years of age, colonoscopy in everyone greater than 50 years of age) will need to go through the donor's insurance (not the recipient's).

DAY 1: Donor Testing

- ☐ *FASTING* Blood Tests:
  - ☐ Fasting glucose
  - ☐ Fasting lipid panel
  - ☐ Electrolytes
  - ☐ BUN, creatinine
  - ☐ Calcium, phosphate
  - ☐ Uric acid
  - ☐ Liver function panel
  - ☐ Hgb A1c
  - ☐ Complete blood count with diff (CBC)
  - ☐ PT/PTT/INR
  - ☐ HIV
  - ☐ Hepatitis B surface antigen
  - ☐ Hepatitis B core antibody
  - ☐ Hepatitis B surface antibody
  - ☐ Hepatitis C antibody
  - ☐ RPR/TPA (syphilis test)
  - ☐ Strongyloides Ab
  - ☐ ABO (blood type)

Testing for specific gender/race:
- ☐ PSA for men ≥ 50 y/o or African American men ≥ 40 y/o
- ☐ Sickle test for African Americans
- ☐ Urine pregnancy test in women, if indicated

Urine (spot sample)
- ☐ Urinalysis (urine dipstick)
- ☐ Spot urine for albumin and creatinine (this is testing for microalbuminuria)
- ☐ Urine culture

24 hour urine collection for:
- ☐ Urine creatinine
- ☐ Creatinine clearance
- ☐ Urine microalbumin
- ☐ Urinary total protein

DAY 2: Donor Testing

- ☐ Chest X-ray
- ☐ EKG
- ☐ 2nd 24hr urine collection (again for creatinine, creatinine clearance, microalbumin, protein)
- ☐ 2nd urinalysis (spot urine dipstick)
- ☐ Serum creatinine (needed to calculate 24hr urine collection)
- ☐ 75gm glucose tolerance test (required if abnormal HGBa1c OR 1st degree relative with diabetes)

******Please check a blood creatinine with both 24hr urines. We need both values to calculate the creatinine clearance******

Instructions for 24 hour urine collection (Day 1 or 2 of Evaluation)

1. Empty your bladder first thing in the morning when you wake up, and please remember to *note the time*. You will be starting with an empty bladder. *Do not* include this urine in the collection.
2. Collect **ALL** urine for the next 24 hours in the empty container provided.
3. Stop your test the next morning at the same time you noted the day before and *include* this final urine in the container, as well.
4. Bring your container to the office where you will pick up your lab slips. You will also need to have blood drawn.
5. Drop off specimen to the lab.

Tests you may be asked to complete:

1. **Blood test**: to check blood type compatibility between you and the transplant candidate.

   - **Blood Type Compatibility Chart**

Donor's Blood Type	Transplant Candidate's Blood Type
O	O
A or O	A
B or O	B
A, B, AB or O	AB

NOTE: The Rh factor (+ or -) in blood type is not important in compatibility.

   - **Tissue Typing:** this blood test checks the tissue compatibility between you and the transplant candidate.

   - **Crossmatching:** the blood test determines how the transplant candidate will react to your organ. A "positive" crossmatch means that your organ is incompatible with the candidate. A "negative" crossmatch means that your organ is compatible with the candidate.

   - **Antibody Screen:** when a foreign substance (antigen) enters a person's body, a protein substance (antibody) is created in response to that antigen. (Blood from transfusions and viruses are examples of antigens). Results of this test will show if the transplant candidate has antibodies in his/her body that would react to your antigens.

   - **Blood tests to screen for transmissible diseases:** these tests determine if you have HIV/AIDS, hepatitis, cancer, and other transmissible diseases.

2. **Urine test**: a 24-hour urine sample is collected to look at your kidney function.

3. **Chest X-Ray and electrocardiogram (EKG):** these tests screen for heart and lung disease. Depending upon your age and medical history, other heart and lung tests may be needed.

4. **Radiologic testing:** these tests help physicians view the organ you want to donate, including its blood vessel supply. They can include a CAT scan, ultrasound, and renal function scan.

5. **Psychosocial and/or psychological evaluation:** this assesses your mental and emotional health, whether you feel pressure from others to donate, your ability to understand information and make an informed decision, and your daily life circumstances (such as the possible impact on your job, whether you would have any help while recovering from donation, if this would be a financial hardship, and your family's views about the donation).

6. **Gynecological examination:** female donors may receive a gynecological examination.

7. **Cancer screening:** these tests may include a colonoscopy, mammogram, prostate exam, lung cancer and skin cancer screening. Your transplant team will determine your individual needs.

Selection Criteria 7

Upon completion of the medical, surgical, and psychosocial evaluation, you will receive notification of whether or not you are a suitable living kidney donor candidate. The Kidney Transplant Program may refuse you as a donor once your evaluation is complete. In such cases, you could be evaluated by another transplant program that may have different selection criteria. Our program utilizes the following criteria to determine your qualification as a donor:

1. Donor must be donating voluntarily and be willing to undergo the necessary evaluation process including signing a consent form to begin their evaluation.

2. Absence of kidney disease or structural or anatomic abnormalities that might lead to donor renal dysfunction post donation.

3. Absence of HIV, active HBV, HCV or RPR+.

4. Age greater than or equal to 18.

5. The potential donor must have adequate health insurance and should be expected to carry adequate health insurance in the future.

6. A negative pregnancy test for potentially fertile females.

7. Absence of active substance abuse.

8. Absence of any condition or combination of conditions which the donor's physician or multidisciplinary selection committee concludes that donation will be a high risk to the donor and/or unlikely to be successful (including but not limited to; hypertension, obesity, lung disease, cardiovascular disease, diabetes or propensity to diabetes, bleeding or clotting disorders, etc).

Post Donation Follow-Up Requirements | 8

The journey of donating does not end after the organ has been donated; regular follow-up from both psychosocial and medical professionals after kidney donation is required. It is a lifelong commitment to maintain your overall health and preserve the function of your remaining kidney.

Life Style Advice:

- ***Follow-up at BWH Renal Transplant Clinic at 1 weeks, approximately 6 months, 9-12 months, and 2 years post-operatively for 24-hour time urine collection, blood pressure, and basic labs***
- Avoid heavy lifting for 12 weeks after surgery
- Exercise at least 4 times a week for 30 minutes (caution should be used when engaging in contact sports)
- Eat a balanced and appropriate caloric diet
- Avoid saturated fats, trans fats, and sodium
- Eat plenty of fruits and vegetables
- Get plenty of rest
- Avoid all non steroidals(i.e. Aspirin, Advil/Motrin/ibuprofen, indomethacin/Indocin, Orudis/ketoprofen, naproxyn/Naprosyn/Aleve, Celebrex/celecoxib, Voltaren/diclofenac, Dolobid/diflunisal, Lodine/etodolac, Relafen/nabumetone, Daypro/oxaprozin, Feldene/piroxicam, Amigesic/salsalate, Clinoril/sulindac, Tolectin/tolmetin, Toradol/ketorolac)
- You may use Tylenol/acetaminophen per recommendations on bottle.
- If you have any questions regarding future medications, please contact our office

Medical Evaluation Focus:

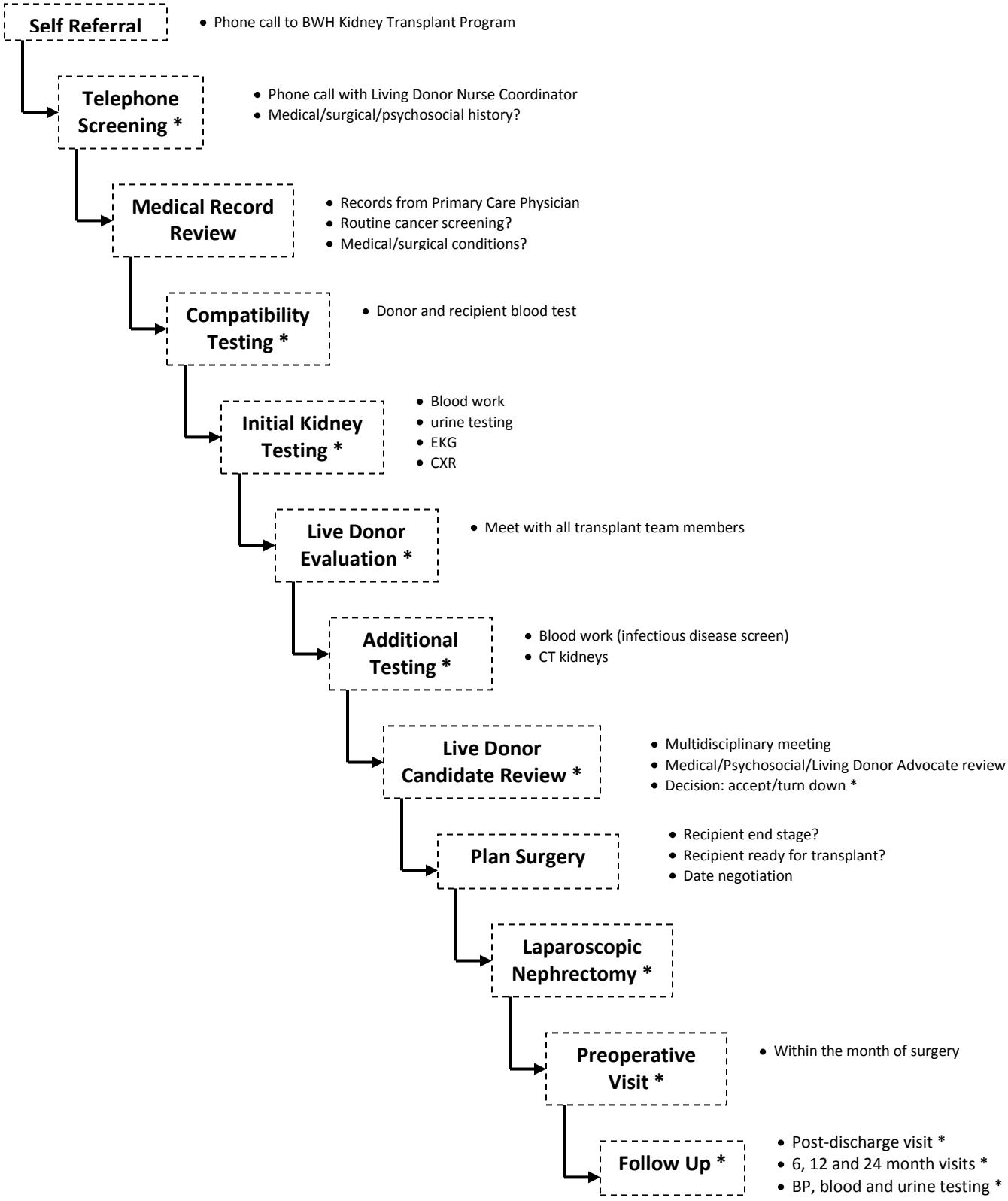
- Yearly blood pressure management
- Yearly height, weight, and weight circumference
- Age appropriate physical exam
- Laboratory yearly:
    a. urinalysis
    b. urine albumin; creatinine ratio
    c. serum creatinine
    d. fasting blood glucose; HgbA1C
- Additional laboratory:
    a. optimally, yearly lipid profile

Psychosocial Follow-Up:

Any concerns and/or issues will be brought to the attention of the transplant social worker. Psychosocial appointments are always available for any living donor at any point in the post-transplant process.

This document will be frequently reviewed and subject to change as new medical knowledge becomes available and therapies improve, so please ask for a new one every year.

Summary of Living Kidney Donation Process



*** Required Elements**

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