

WHAT TESTING IS INVOLVED?

THE INITIAL CONSULTATION:

During this consultation a transplant surgeon, transplant coordinator, and a transplant social worker will meet with you to review your past medical, surgical, psychological, and social history. You will be examined by the surgeon and then sent for blood tests. A social history means that you will be asked questions about your social conditions and behavior including marital status, occupation, drinking habits, and smoking habits, as well as your mental health including any history of depression or mental illness and your feelings about donating a kidney and your support system to help you through your surgery.

THE BLOOD TESTS:

You will be required to have multiple laboratory tests done, which include: confirmation of your blood type, routine chemistry, hematology, coagulation, hepatitis screens and viral studies including a test for HIV/AIDS. All of these blood tests are routine to the transplant process. The recipient will have the same tests. The results will be cross matched to determine if you are an appropriate donor.

URINE COLLECTIONS:

You will be required to perform two 24 hour urine collections. The purpose is to evaluate how your kidneys are working. You will have to collect all of your urine during a 24-hour period. You will then return to the outpatient laboratory with your sample. At this time a tube of blood will also be drawn. You will repeat this process again one week later..

RADIOLOGY:

A **chest x-ray (CXR)** will be used to determine if your lungs and respiratory tract are healthy.

An **ultrasound** is a procedure which produces images or pictures of organs and blood vessels in your abdomen (belly). During the procedure you will be lying down on a table similar to an x-ray table. A clear gel will be put on your abdomen. This gel helps to conduct sound waves. The technician will move a probe over your abdomen. This probe is releasing sound waves that are moving through your body. The technician is watching a screen that is displaying your kidneys and the blood vessels of the kidneys. The probe will be held in certain positions and pictures will be taken. You may feel a little pressure and you may be asked to hold your breath for short periods of time.

An **MRA (Magnetic Resonance Angiogram)** uses magnetic fields, radio waves, and a computer to produce clear images (pictures) of your kidneys without the use of x-rays. This test allows the physicians to view your kidneys and their blood vessels to look for any abnormalities. An MRA can provide information about the blood flow in the kidneys and the structure of the blood vessels themselves. The procedure is done using an MRI (Magnetic Resonance Imaging) machine. The MRI scanner is a tube surrounded by a giant circular magnet. A dye or contrast material may be injected to make the blood vessels show up more clearly. If you have an allergy to iodine, shellfish, or IV contrast please let your physician know. You will be placed on a moveable bed that is inserted into the MRI scanner. If you suffer from claustrophobia, speak to your health care provider as sedative medications may be given prior to the MRI to help you to relax. It is important that you lie still for the entire

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testing time (up to one hour). There are no known side effects of MRI scanning, and there is no exposure to radiation. *If you have a heart pacemaker, metal implants, artificial heart valves, and other surgically implanted structures you cannot be scanned with an MRI because of the risk that the magnet may move the metal parts of these structures.*

CARDIAC EVALUATION:

An **electrocardiogram**, also known as an EKG or ECG, is a test that examines how well your heart is beating. Electrical activity, generated by the contracting and relaxing of the heart muscle, is measured and recorded on a strip of moving paper. To accomplish this, metal electrodes attached to a recording machine are placed on your arms, legs, and chest. No electricity enters your body and the test does not cause any discomfort. If you are over 50 you will be required to have an echocardiogram and a stress test in addition to an EKG.

An **echocardiogram**, is a test that uses sound waves to look at your heart and the pressure in its vessels. The machine has a microphone-like device called a transducer, which is placed outside the chest wall, and emits ultrasonic (sound) waves. The machine translates the echoes of these waves into a picture on a piece of paper. The "echo" of your heart structure can then be measured.

A **Stress test**, examines your heart's response to exercise. A stress test is a special EKG taken before, during and after a specific period of intense activity, such as pedaling an exercise bicycle or walking on a treadmill. Your blood pressure and pulse also are monitored before, during and after the time you are performing this activity. Certain abnormalities may become apparent in stress testing that do not appear in a conventional EKG, as the heart requires more oxygen-rich blood during exercise than while at rest. All of these tests are performed with the goal of making sure that your heart is healthy enough to withstand the stress of your transplant surgery. There are a few different types of stress tests, some of which require you to walk on a treadmill and some of which give you medicine to make your heart think it's exercising. Your doctor will decide which is appropriate for you.

PULMONARY WORKUP:

If you were a smoker you will be required to have a pulmonary function test done. **PFTs** (Pulmonary Function Tests) are used to check your lung function and determine your blood's ability to carry oxygen. Several methods are used to determine the amount of air the lungs can hold and how well the lungs move air into and out of the body. This test measures the capacity of the lung (the amount of air the body can hold) and records both your capacity to breathe in (inspiration) and to breathe out (expiration). *To prepare for this test avoid caffeine on the day of the test.*

SOCIAL WORK/PSYCHIATRY:

You will be required to meet with a social worker without the recipient. At this meeting the social worker will discuss with you the many psychological and social issues involved with living donor kidney transplantation. You may be required to meet with the transplant team's psychiatrist.

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NEPHROLOGY CONSULTATION:

You will be required to meet with a nephrologist (kidney specialist) who will review all of your test results and will examine you. The nephrologist acts in your best interest to minimize the danger in donating a kidney. He/she will determine if you need any additional testing at this time.

WHEN YOUR EVALUATION IS COMPLETED:

When your evaluation is complete the Transplant Team will meet to review and discuss your test results and whether you make an appropriate candidate as a living donor. If the team is in agreement, then surgery is then scheduled based on the donor's and recipient's schedules and operating room availability.