

# **Becoming a living kidney donor**

**Question and Answer Pamphlet**

**UCSF Medical Center Transplant Service**

## **What You Need to Know about Kidney Living Donor Kidney Transplantation**

At UCSF Medical Center, the majority of organs for transplantation are obtained from people who have died and whose families have given permission for their organs to be donated. However, there are not enough of these organs for everyone who needs one. Nationally, more than 50,000 patients are on the kidney transplant waiting list, with more added each day. In the year 2000, only 13,500 patients received a kidney transplant. Because of the organ shortage, many patients die while on the waiting list or become too sick to undergo transplant.

Living donor kidney transplantation is an important alternative. If a patient can receive a kidney from a relative or friend, he or she need not wait for a cadaveric organ to become available and are less likely to die or get too sick to undergo transplant.

Living donor kidney transplantation is possible because we are born with two kidneys. When surgeons remove a donor's kidney, the remaining kidney in the donor grows slightly to provide adequate kidney function.

Since the 1950s, surgeons around the world have performed living donor kidney transplants. UCSF surgeons have performed living donor transplants since 1963.

### **Q. What are the advantages of living donor kidney transplant?**

A. The main advantage for the recipient is that he or she can receive it without having to wait on the cadaveric transplant waiting list. Patients who wait for a cadaveric transplant may have more medical problems, are usually weaker going into the surgery and are more likely to have complications. The advantage for the donor comes from knowing that he or she is helping someone who needs a kidney transplant.

### **Q. What are the general requirements to become a living donor?**

A. Generally, you should be between the ages of 18 and 65 years old. You should not have any major medical or psychiatric illness and you must not be pregnant. You should not be overweight, although you may still be a potential donor if you lose weight. If you smoke, you must quit for six weeks prior to surgery. You also must be able to understand the risks of this surgery and be able to comply with our instructions for follow-up medical care.

### **Q. Does the donor need to be related to the recipient?**

A. No, blood relation isn't necessary.

### **Q. If the donor is related to the recipient, will he or she experience less rejection?**

A. No. The relationship between donor and recipient also doesn't appear to affect the amount of anti-rejection medication the recipient will need after transplant.

### **Q. Will the recipient be removed from the cadaver kidney waiting list while a potential living donor is evaluated?**

A. No changes are made to the recipient's status on the waiting list.

### **Q. What is the first step in the evaluation?**

A. Know your blood type. You must be either the same blood type as the recipient or blood type "O." Your Rh factor - positive (+) or negative (-) does not affect your suitability to donate.

**Q. What's next?**

A. Call our Transplant office at (415) 353-1551 and ask the receptionist for the living donor kidney transplant program coordinator. We will do a brief health screening over the phone and you can ask questions.

You will need to complete and return a medical questionnaire we will send you and attach a confirmation of your blood type. The questionnaire will give us an idea of any medical problems that would influence our decision to proceed with further testing. Please take your time in completing this questionnaire to ensure accuracy. Some questions, such as family history, may require the help of other family members. Other questions, such as smoking, alcohol or drug history, can be quite sensitive. We need you to be truthful, as hiding information may be dangerous to you or the recipient. This questionnaire is extremely confidential. Only the health professionals on the Transplant Team will use this information. It will not be shared with the recipient or others.

**Q. What are the next steps of the evaluation?**

A. We will need to obtain various blood and urine test results, a chest X-ray and an EKG. If these tests suggest that you could be a donor, an intravenous pyelogram and renal arteriogram will be performed to ensure that you have two healthy kidneys. Other tests also may be necessary.

**Q. May I be evaluated by my own doctor?**

A. In general, the tests will be done at UCSF Medical Center. Some insurance companies want some of the tests done elsewhere but we insist that the more crucial tests be done here. If you live outside California, some portions of the initial evaluation can be done near your home. No matter where the initial testing is done, the evaluation will require visits to UCSF Medical Center.

**Q. What is the purpose of the evaluation?**

A. The purpose of the evaluation is to make sure that your kidneys are normal and that you do not have any medical or psychiatric illness that would make this procedure risky or difficult. We also want to make sure you do not have any medical conditions that could be transmitted to the recipient. Finally, we want to make sure that you are becoming a donor voluntarily, and that no one is pressuring you to donate.

**Q. What happens during the evaluation?**

A. The work-up involves a full medical history and physical including cardiovascular and cancer screening. A medical evaluation is done by a physician who serves as a "donor advocate" looking at the donor transplant surgery with only the donor's interests in mind. **None of the tests, procedures or consultations will be scheduled until insurance authorization has been obtained for both the recipient's transplant surgery and the donor's work-up and surgery.**

**Q. Do I need to fast before my appointments?**

A. It may be necessary for you to fast for some of the tests.

**Q. Is my evaluation covered by medical insurance?**

A. You should not incur any medical expenses related to the evaluation, surgery, hospitalization or immediate postoperative care. These charges are billed to the recipient's insurance company. After you leave the hospital, some recipients' insurance carriers do not cover additional medical expenses for the donor. Consequently, we insist that donors have their own medical insurance or an agreement with the recipient's insurance company to cover expenses related to the donor surgery both in and out of the hospital.

**Q: Is the information shared by the donor with the Transplant Team confidential?**

A: Yes. It is important that the donor feel completely comfortable disclosing all requested information. The Transplant Team is as concerned with the safety of the donor as well as the recipient and many factors contribute to the viability of you becoming a donor, both medical and psychological. For these reasons, anything discussed in the course of the donor evaluation process is between the donor and the transplant team. Any information about the recipient that is shared with you as a donor also should be considered confidential.

**Q: Should the chances for success or failure affect my decision to donate?**

A. You are volunteering, with extraordinary generosity, to donate your kidney in an attempt to improve another person's quality of life. Before you make this gift, you should understand that there's no guarantee that your sacrifice will actually improve your recipient's life.

**Q. How quickly will I know if I can be a donor?**

A. Generally, we let you know within two weeks of completing every component of the evaluation. Further tests may delay your clearance. It is important that you allow yourself time to digest the information you are reading here and the additional information you will get when you meet with us. **The decision to donate your kidney is not one to make lightly. Consider it very carefully, and discuss it with your family and significant others.**

**Q. If I am cleared to be a donor, how is it decided when the transplant will take place?**

**A.** This decision is made jointly by the transplant team, by you, and by the recipient. The transplant team, particularly the physicians involved directly in your recipient's care, will determine as accurately as possible the best time to do the transplant, based on the recipient's medical condition. Once we know this, we ask for your input as to what suits you best and try to accommodate your schedule, if possible

**Q. Once the transplant is scheduled, will it definitely happen?**

**A.** Unfortunately very little is written in stone when it comes to kidney transplantation. A number of things could happen that could change our plans. For example, your recipient's condition might deteriorate to the point where he or she is too sick for a transplant. Or, the recipient or donor might develop an infection or some other condition that would need to be treated before the transplant could be done.

**Q. Do I need to do any special preparation prior to surgery?**

**A.** The medical evaluation we perform on potential living donors is extremely thorough. Once you have completed your evaluation and we decide to proceed, there is not much additional testing to be done. If you opt to donate your own blood in the event of the need for transfusion, we will want you to donate a unit of your blood within 2-4 weeks prior to your surgery. We may also need to repeat some of your blood tests, if they were done more than 30 days before your surgery date. You will also need to give a sample of your blood to our blood bank within 72 hours of the surgery. We will have you, your recipient, and your immediate family come in 2 or 3 days before the surgery for a final pre-transplant review, for any minor tests that may be needed, and to answer any remaining questions you may have.

**Q. Should I stop smoking before my surgery?**

**A.** You must stop smoking to be a donor, even if you are a light smoker. Smokers have an increased risk of cardiovascular and pulmonary complications with any surgery.

**Q. Should I stop drinking alcohol?**

**A.** If you are going to be a donor, it is best that you stop drinking. If you have a history of heavy alcohol use, it is very important that you tell our physicians. Alcohol use may not preclude you from being a donor. You should not return to drinking alcohol after surgery until advised it is safe to do so by the Transplant Team.

**Q. Should I stop taking my medication(s) before the evaluation or the surgery?**

**A.** You should not stop any prescription medication unless advised to do so by a physician. You should avoid aspirin or non-steroidal medications (such as Advil or Motrin) for 7 days before surgery. These medications can affect the ability of the blood to clot and put you at higher risk of bleeding complications. Instead, you may take Tylenol if needed. Women who take birth control pills will be advised to stop taking them 30 days before surgery because of the increased risk of blood clots after surgery.

**Q. Do I need any special diet before surgery?**

**A.** You can eat and drink normally until noon the day before the surgery. You will have a liquid diet from noon until midnight then nothing by mouth until surgery. You will need to take a laxative the day before surgery. If you regularly take any medications, we will instruct you about these when you come in for the final appointment before surgery.

**Q. When will I be admitted for surgery?**

**A.** You and your recipient will be admitted to the hospital on the day of the surgery.

**Q. What should I bring with me to the hospital?**

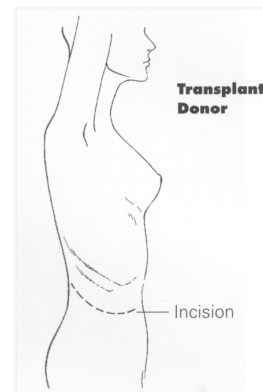
**A.** Bring only minimal belongings and no valuables. Because we have your insurance information, there is no need to bring any documentation with you unless we specifically ask you to. Leave all jewelry or other valuables at home or give them to your family for safekeeping. You may want to bring a basic toiletry bag for your use in the hospital.

**Q. How is my kidney removed?**

**A.** The removal of a kidney can be done by one of two ways: an open incision in the flank (side) region or using small incisions with the aid of a scope with a camera (laparoscope). The open incision technique has been the standard for the last 35 years, and involves a 5-7 inch incision on the side, division of muscle and removal of the tip of the twelfth rib. The operation typically lasts three hours, and the recovery in the hospital averages 4-5 days with a time out of work of 6-8 weeks. The newer technique using the laparoscope was first used at our center in 1999 and involves four small (1/2 inch) incisions on the left or right side of the abdomen. These small cuts are used to introduce special instruments, which can be used to dissect out the kidney. In the final step, a 3.5-inch cut is made on the lower abdomen (at the “bikini line”) for removal of the kidney. This technique takes about 4 hours. This technique does not require the cutting of any muscle, and the usual hospital stay is 2-3 days, with a potential to return to work in 3-4 weeks. The amount of pain from the incisions and bloating that occurs after the surgery is typically less in patients that undergo the laparoscopic procedure. Kidneys recovered with either technique work equally well. You will not know until the final steps of the x-rays of your kidney if it is possible for you to undergo the laparoscopic procedure.



**Laparoscopic Nephrectomy**



**Open Nephrectomy**

**Q. How much time passes between removing the kidney from the donor and transplanting it into the recipient?**

A. The operations on the donor and the recipient take place at the same time, in separate operating rooms.

**Q. Will I require a blood transfusion during my surgery?**

A. Blood transfusion during this surgery is uncommon, although it may be necessary. As a precaution, we will ask you to "donate" one or two units of your own blood before the surgery. If you do need a transfusion, we can then use your own blood so you should not be exposed to the possible risks of a transfusion from someone else. There may be shipping charges if you donate the blood at your local blood bank. Quite often these costly charges are not covered by the insurance provider. Should this be the case for you, arrangements can be made for you to donate the sample at the UC Blood Donor Center.

**Q. What are some of the possible complications of the donor's operation?**

A. As with any surgery involving general anesthesia, there are possible complications of the anesthesia itself including heart complications, stroke, and blood clot formation in the legs or lungs. There are risks associated with any operation on the abdomen, which are bleeding, infection, and failure of the wound to heal. There is even a risk that you might die. We will discuss these risks with you in more detail during the evaluation.

**Q. How long will I be in the hospital?**

A. The average hospital stay for donors is 2-5 days after surgery.

**Q. Will I have a scar after the surgery?**

A. In most cases, the incision heals quickly; leaving a scar that fades over time but will always be visible. If a wound infection develops, you may be left with a wider scar that will be more obvious. Occasionally, people develop what is called a keloid, which is the over-growing or over-healing of the skin and results in a raised scar. Keloids can be corrected by plastic surgery if you so chose. However, this corrective cosmetic surgery is unlikely to be covered by your recipient's insurance in the case of the donor.

**Q. Will I have much pain after the surgery?**

A. Unfortunately, you may have significant pain after this surgery. We will give you pain medication but, despite the medication, you will still be very uncomfortable for at least the first week. You will begin to have less pain as each day goes by, but most of our donors have told us that they still had a significant amount of discomfort for 1-2 weeks after the surgery. Most pain medications make you drowsy, can effect your breathing, may cause nausea, and/or constipation. We will be trying to get the right balance of pain medication to make you comfortable, but not drowsy, so you can do your deep breathing exercises, cough and walk. A prescription for pain medication will be provided to you before you leave the hospital for pain control at home.

**Q. Will pain medication be administered by injection or orally after the surgery?**

A. We use a variety of methods to administer pain medication. You will have what is called a PCA (Patient Controlled Analgesia). With PCA, you have an intravenous line attached to a computer-controlled pump. You press a button whenever you need pain medication and the medicine is immediately administered directly into your vein. Once you are eating normally, we will switch you to a pain medication that is taken orally.

**Q. Will I have any tubes or drains in me after the surgery?**

**A.** You will have one or two intravenous lines in you during and after the surgery so we can give you fluids to keep you hydrated and give you medications. One of these lines may be used to administer your pain medication after the surgery. You will also have a catheter (drainage tube) in your bladder so we can monitor how your kidneys are working during and after the surgery. Having the catheter in your bladder also means that you will not need to get up to the bathroom immediately after your surgery. The tubes and intravenous lines are usually removed within 2-3 days.

**Q. Will I be in the same room as my recipient after the surgery?**

**A.** No, the recipient generally goes to the same floor but in a different room.

**Q. How soon will I be able to eat and drink after my surgery?**

**A.** As soon as your intestines start to work again after the surgery, you will be able to begin to eat and drink again. If you do not have nausea or vomiting with sips of water, you will be able to progress to clear fluids and then to a regular diet within the next 2 days.

**Q. Will I have a normal life after surgery?**

**A.** We expect that most patients will return to a normal life within 2-3 months after your surgery, provided you do not experience any serious complications.

**Q. How long will I be off work?**

**A.** The minimum amount of time you should allow yourself to recover is 4-6 weeks. Because people recover differently, with varying degrees of fatigue and pain, you may need as long as 8-12 weeks. We prefer that you be in a position (both financially and from a job security perspective) to be able to take 8 weeks off from work, should you need it.

**Q. Will I be entitled to disability pay?**

**A.** If your job provides disability coverage, then you will most likely be entitled to disability pay.

**Q. When can I restart my birth control pills?**

**A.** We advise you to wait for a minimum of three months after surgery.

**Q. Will I need to come back to the hospital for check-ups?**

**A.** This procedure is major surgery and we need to monitor you very closely at first to ensure that your recovery is progressing normally. You must come back for a check-up about a week after you leave the hospital. You will probably need another check-up at 4-6 weeks after your surgery. You will need an annual follow-up with local physician for the rest of your life.

**Q. Must I remain close to the UCSF hospital after my surgery?**

**A.** You need to remain close to UCSF for at least 2-3 weeks after your surgery. You also need to be able to return to UCSF if you experience any problems during your recovery. We recommend that you have a relative or friend stay with you, especially immediately after you leave the hospital.

**Q. Will I need to take any medications after I donate a kidney?**



**A.** You will not need any medications except for some pain medication. If you were to develop a wound infection, you might be prescribed antibiotics. We do not think that you should need any medications specifically related to kidney donation in the long term.

**Q. Will I need a nurse to take care of me when I leave the hospital?**

**A.** Although this is a very big operation and you will be tired and weak, you should not need any professional nursing care at home. You will need a friend or family member to do your food shopping, perhaps cook your meals, and just generally be available should you run into any difficulties. It is also nice to have some company when you first come home from the hospital. You should have someone available to take you to and from the UCSF clinic for your check-ups.

**Q. When will my sutures be removed?**

**A.** Usually the wound is closed with sutures beneath your skin. These sutures dissolve and do not require removal. Small strips of tape are placed over the external incision and can be removed about one week after surgery.

**Q. When will I be able to drive after my surgery?**

**A.** We advise you not to drive for at least the first 2-3 weeks after the surgery. You must be physically and mentally strong, with normal reflexes, and not experiencing any abdominal pain or discomfort before you decide to drive. You should not be taking any medication that can affect your mental alertness. Pain medications containing narcotics (like Vicodan, Percocet or Tylenol with codeine) can affect your mental alertness and you should not drive if you are taking these types of pain medications.

**Q. When can I resume physical activities?**

**A.** If you are feeling well and are not having any complications, you may begin to return to your normal exercise activities. Begin slowly and build up your strength and stamina. You will need to avoid any heavy lifting for the first 4 weeks until your abdomen has completely healed.

**Q. When can I begin to exercise?**

**A.** As soon as you wake up from the anesthesia you will begin "exercising." You will need to take deep breaths and cough to make sure you are getting air into all the cells of your lungs. This will help prevent pneumonia. You will also begin to exercise the muscles of your legs by flexing and relaxing them periodically. You will be helped out of bed the day after your surgery and begin walking. We cannot stress enough how important walking is to your recovery. Each day you should be pushing yourself a little bit more. By walking as soon after your surgery as possible, you will help to prevent such complications as blood clots, pneumonia, and muscle wasting. You are encouraged to continue a program of daily walking when you go home. Remember: the goal is to be back to normal health within 2-3 months.

**Q. When can I engage in sexual intercourse?**

**A.** You will probably want to refrain from sexual intercourse for a couple of weeks until you have less discomfort and are feeling stronger. This decision is based on how you are feeling.

**Q. How long should I wait after surgery to get pregnant?**

**A.** There is no definite answer to this question. We recommend that you do not become pregnant for at least 6 months after surgery. It is unknown if this operation will effect a woman's fertility because this hasn't been studied in a systematic fashion.

**Q. When can I go on vacation or fly?**

**A.** You should not plan any vacations or trips outside the U.S. for at least 4 weeks and preferably 8-12 weeks after your surgery. If you wish to return to your home in the U.S., and you have a good local physician, you may be able to do so within 2 weeks after the surgery depending on how you feel and how you are recovering. Remember, if we have any concerns about possible complications, we will want you to return to UCSF for evaluation and treatment. It should be no problem for you to take trips or vacations after 8-12 weeks.

Please read through this information carefully and discuss living donor kidney transplant with your family and loved ones. If you have further questions, please call the Transplant Center and speak with Nurse Coordinator.