

Becoming a
*Kidney
Donor*

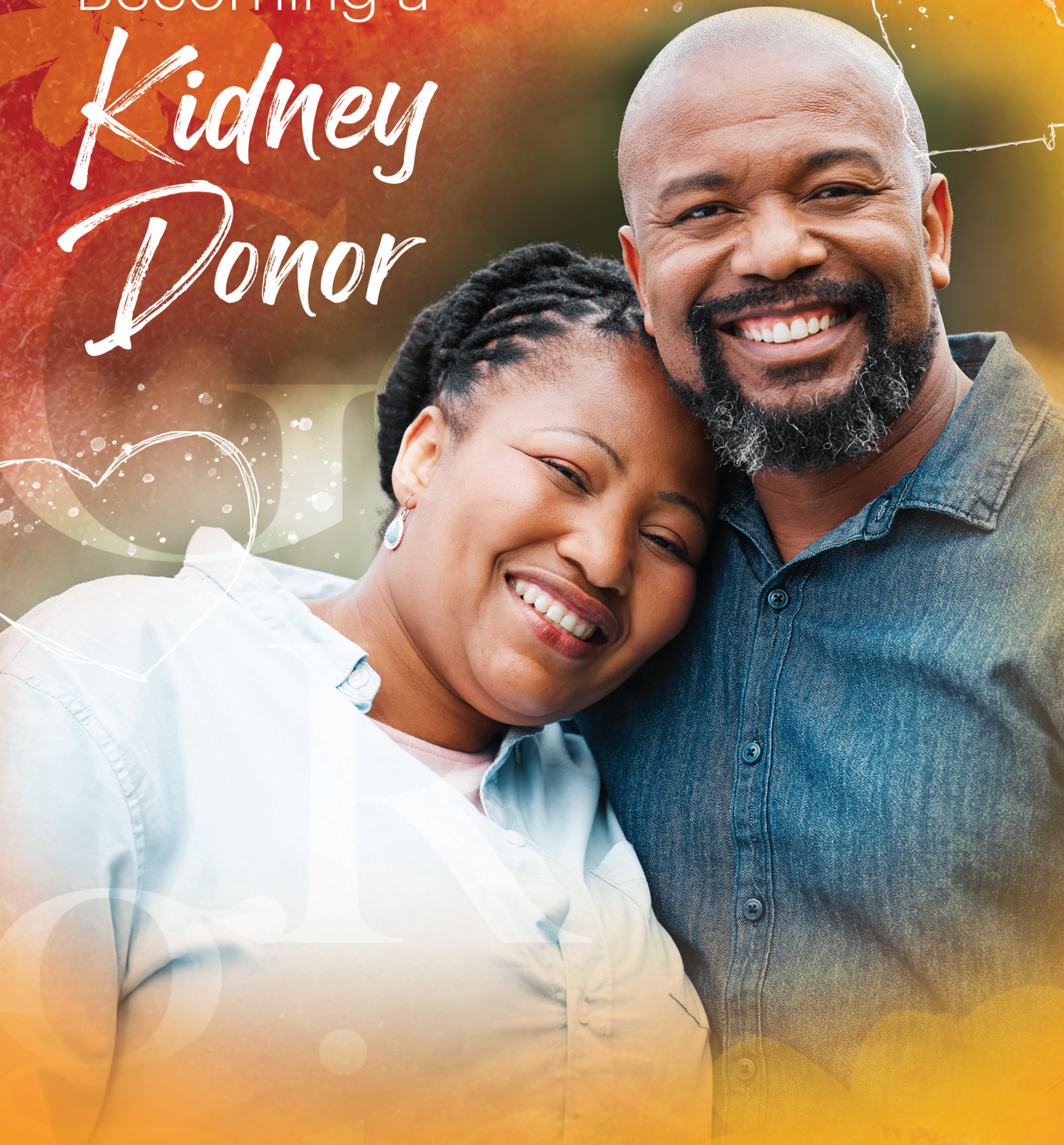


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You have the power to save lives - Thank You!

Why living donor kidney transplant?



Over 100,000 patients in the U.S. need a kidney transplant, and there are not enough donor kidneys to meet the need. Patients in Georgia can wait several years for a life-saving transplant; living kidney donation is key to address the critical organ shortage.

Piedmont Transplant Institute has nationally recognized expertise in living donor kidney transplants. We have completed over 1,500 living donor surgeries and perform a quarter of kidney transplants from living donors. We offer a Paired Kidney Exchange Program for donor-recipient pairs that are not a match. Our outcomes for living donors and recipients are excellent. Everyone on our team is committed to helping others through successful transplantation!

We are glad that you are interested in becoming part of our program through the gift of kidney donation. This booklet will explain each step of the kidney donation process to help you make the decision whether kidney donation is right for you. Our team is also here to answer any questions you may have, and will support you during every step of the evaluation.

Thank you for considering changing someone's life by becoming a living kidney donor.

There are three treatments for end-stage kidney failure:

- Dialysis
- Deceased donor kidney transplant
- Living donor kidney transplant

Advantages to living donation:

- Shorter time to transplant for most recipients.
- Recipient may be able to avoid dialysis.
- The transplant is a planned procedure.
- Lower rejection rates.
- Kidneys from living donors function years longer than kidneys from deceased donors.

Living donation significantly decreases wait times and provides the greatest chance for long-term success.

*"To the world you may be one person,
but to one person you may be the world"*

- Anonymous

Donor Qualifications

Who can be a kidney donor?

- Anybody can be a donor! Parents, spouses, siblings, adult-aged children, relatives, friends, church members, work colleagues, and anonymous individuals can all be donors.

A kidney donor must:

- Be 18 years or older
- Have adequate kidney function to allow donation of one kidney
- Have no medical problems that would increase the long-term risk of developing kidney disease
- Be fully informed of the risk, benefits and alternatives to kidney donation and transplantation
- Be competent to understand the risks of kidney donation and make an informed decision to donate
- Feel no pressure or coercion to donate
- Have no financial motive for donation
- Understand that there are alternative therapies for the recipient including alternate donors, deceased donor transplant, and dialysis

Do I have to be a “match”?

Many donors do not match their recipient due to incompatible blood type or an incompatible crossmatch. You can still donate on behalf of your intended recipient through a Paired Exchange Program. This is covered later in this booklet.

Donor Evaluation Process

During the donor evaluation, we will ensure you are healthy enough to donate a kidney. Additionally, you will learn about the potential health, financial and social impact of kidney donation to help you make your decision. Information you provide to us is strictly confidential and not released to anyone outside of the transplant team. This includes your intended recipient. We cannot discuss your health or test results with them without your permission.

This is an outline of our process before, during and after kidney donation. Each step is discussed in further detail.

- Health history and review of blood pressure readings
- Lab work to check kidney function and screen for conditions including diabetes
- Completion of a 1 day clinic visit at Piedmont Hospital in Atlanta
- Review by the Living Kidney Donor Committee
- Pre-operative visit the week of surgery
- Donation surgery
- Follow-up clinic visits in the transplant clinic at 2 weeks, 6 months, 12 months, and 24 months post-donation
- Follow-up with your primary care physician annually

Health history questionnaire and review of blood pressure

The questionnaire can be done online or printed and mailed to your coordinator. We will review your medical, surgical and social history to determine whether you have any conditions that may preclude kidney donation including:

- Kidney disease including blood or protein in urine
- Unusual kidney anatomy
- Diabetes, history of diabetes during pregnancy, and pre-diabetes
- High blood pressure (considered on a case-by-case basis in individuals >40-45)
- Two or more episodes of kidney stones
- Obesity (BMI < 37 considered on case-by-case basis)
- Transmissible disease such as HIV, Hepatitis B or C
- Cancer
- Psychiatric disease
- Current pregnancy
- Eclampsia

Donor Evaluation Process

After completion of questionnaire, we will review your health history with you and ask you to send us a blood pressure measurement for review. If we are concerned your blood pressure might be too high to consider kidney donation, we will send you a monitor to check your blood pressures over a 24 hour period.

Local labwork

The following is done at a laboratory close to your home:

- Blood and urine tests to assess kidney function and to exclude conditions such as diabetes.

Clinic visit

If the test results are normal, you will be scheduled for a clinic visit to the Piedmont Transplant Center in Atlanta. You will have several tests and consults performed during your visit with us. These may include:

- Glofil test to measure kidney function
- EKG to check your heart rhythm
- CXR to screen for lung disease
- CT scan to evaluate kidney anatomy
- Blood work including testing for HIV, Hepatitis B and C, and a drug screen
- Complete history and physical by a transplant kidney physician
- Psycho-social evaluation
 - Psychiatrist
 - Social worker
 - Living donor advocate
 - Genetic tests if your family history is significant for kidney disease

Additional testing

- Donors 50 years or older must complete a stress test. Exercise clothing including sneakers must be worn.
- Pulmonary function tests for current or prior smokers, and patients with asthma
- Evaluation by a transplant dietician of candidates with low or elevated BMI

Paired Donation

Blood typing and crossmatch

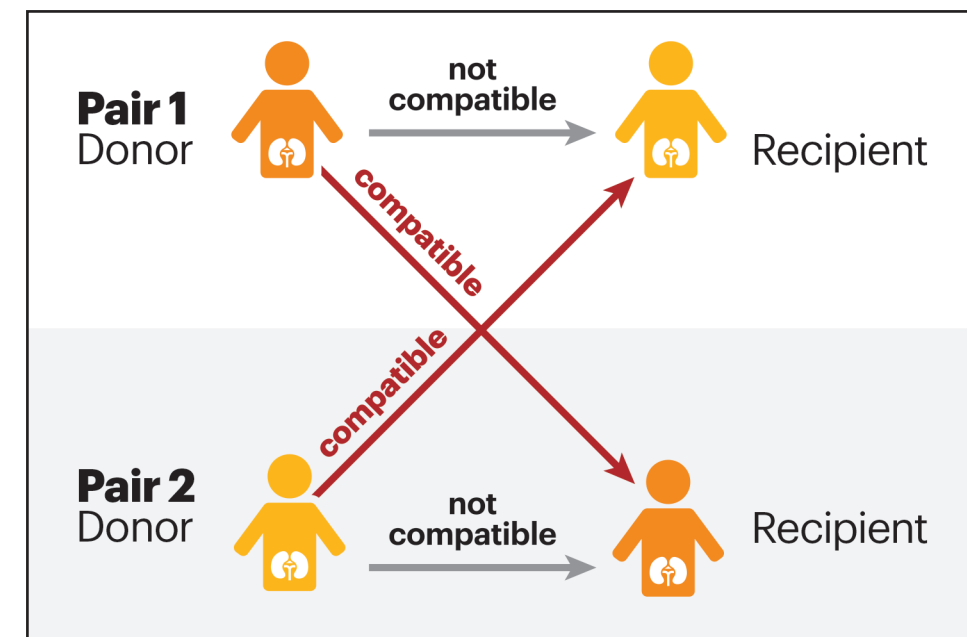
The next step is to check if you and your recipient are a “match”. In order to directly donate to your intended recipient, you must have compatible blood types AND a negative crossmatch. Blood type compatibility:

Blood type O is the “universal donor” and blood type AB is the “universal recipient”.

Recipient blood type	O	A	B	AB
Compatible donors	O	A or O	B or O	A, B, AB and O

In addition to blood type compatibility, you must be immunologically compatible. The recipient may have developed antibodies during previous pregnancy, blood transfusion, or prior transplant that cause a positive crossmatch.

If your blood type or crossmatch shows you are not compatible with your recipient, you are not alone. A third of people are not a match! You can still give a kidney on behalf of your intended recipient through a Paired Kidney Exchange Program. Incompatible pairs are matched with compatible pairs using a nationwide matching program.



Important things to know about paired exchange

- Sometimes a match is found quickly, for others it can take weeks to months.
- Usually you and your recipient will have surgery on the same day, but sometimes one happens sooner than the other.
- You will have your donor surgery at Piedmont. Your kidney might be transported to another center for transplant.
- Even if you are a match, paired kidney exchange may be advised due to other considerations, such as a significant height or age difference with your recipient.

Risks of the evaluation process:

- Testing could reveal a reportable infectious disease or serious medical condition that requires follow-up testing.
- A genetic condition may be identified that affects your ability to donate.
- You can have an allergic reaction to the contrast used in the CT scan (tell us if you have an iodine or shellfish allergy).



Long-term medical risks of kidney donation

- After donation, kidney function is reduced by 25 - 35% on average. Studies show the lifetime chance of kidney failure is:
 - General population: 3.2%
 - Kidney donors: 0.9% (donors are healthier than general population)
 - Non-donors that are healthy enough to donate: 0.14%
- There is a tool called a 'risk calculator' that may help people considering donation understand their risk of kidney failure pre donation. This is an estimate only and can be found at: <http://www.transplantmodels.com/esrdrisk/>
- It is more difficult to predict the lifetime risk of developing conditions that affect kidneys (such as high blood pressure or diabetes) in younger donors.
- Although end-stage kidney failure is rare in prior living kidney donors, they receive priority on the transplant waiting list. Of the more than 95,000 kidney donors between 1999 and 2014, we know of 46 listed for kidney transplant.
- Risk of developing pre-eclampsia after donation is approximately 6% post-donation versus 3% pre-donation for female donors. Donating a kidney does not change your ability to get pregnant
- The risk of incisional hernia is less if you follow post-donation lifting restrictions.
- Early detection and treatment of health conditions is key to keeping your remaining kidney healthy! Eating a balanced diet and exercising regularly will also help keep your remaining kidney functioning well.

Psychosocial evaluation

An important part of the evaluation is to help you explore your expectations about kidney donation. Questions about donation that we want you to consider include:

- How will donation impact your relationship with the recipient?
- What do you anticipate your reaction will be to the "loss" of a kidney?
- How will you feel if something happens to the recipient such as rejection, loss of the transplant, or serious complication such as infection or death?
- How well do you feel the recipient will take care of the kidney transplant?
- Are you feeling pressure from the recipient or anyone else to donate?

Medical and Psychosocial Considerations

We encourage you to speak openly about your concerns with our living donor coordinator, social worker, living donor advocate, or transplant psychiatrist. We want to address your concerns and provide you with the information needed to make your decision. In some cases, it is also helpful to talk to a counselor, religious figure or trusted friend to think through these important considerations.

During the psychosocial evaluation, we will also address the financial impact of donation. The recipient's private insurance company or Medicare will pay for the medical cost of the donor evaluation, hospitalization, and post-surgery transplant clinic visits.

However, there are out-of-pocket expenses that are not reimbursed. There are also important home and work considerations during your period of recovery that may impact your decision to donate. These include:

- Who will be able to help you at home during your recovery period?
- Transportation to clinic visits pre and post-donation
- Lodging (out-of-town donors)
- Child and pet care
- Employment: lost time, job security, lost wages
- Impact on health insurance eligibility and premium costs
- Out-of-pocket expenses including prescription medications

The Georgia Transplant Foundation (GTF) and the National Kidney Registry (NKR), can pay for certain expenses if assistance qualifications are met. These include travel expenses for evaluation and donation and living expenses while the donor is out of work postdonation. Your coordinator and social worker can provide you with more information about these programs.

It is illegal for a donor to be compensated or paid, directly or indirectly by the recipient, the recipient's family or any other party for donating a kidney.

Cancer screening

You must be up-to-date with age-appropriate cancer screenings in order to donate a kidney. These tests must be reviewed before we can approve you as a donor. We can help you obtain these tests if needed:

- Colonoscopy report or cologuard – donors 45 years or older
- Mammogram report – female donors 40 years or older
- PAP report – female donors (exception if hysterectomy)
- Prostate antigen blood test – male donors 45 years or older

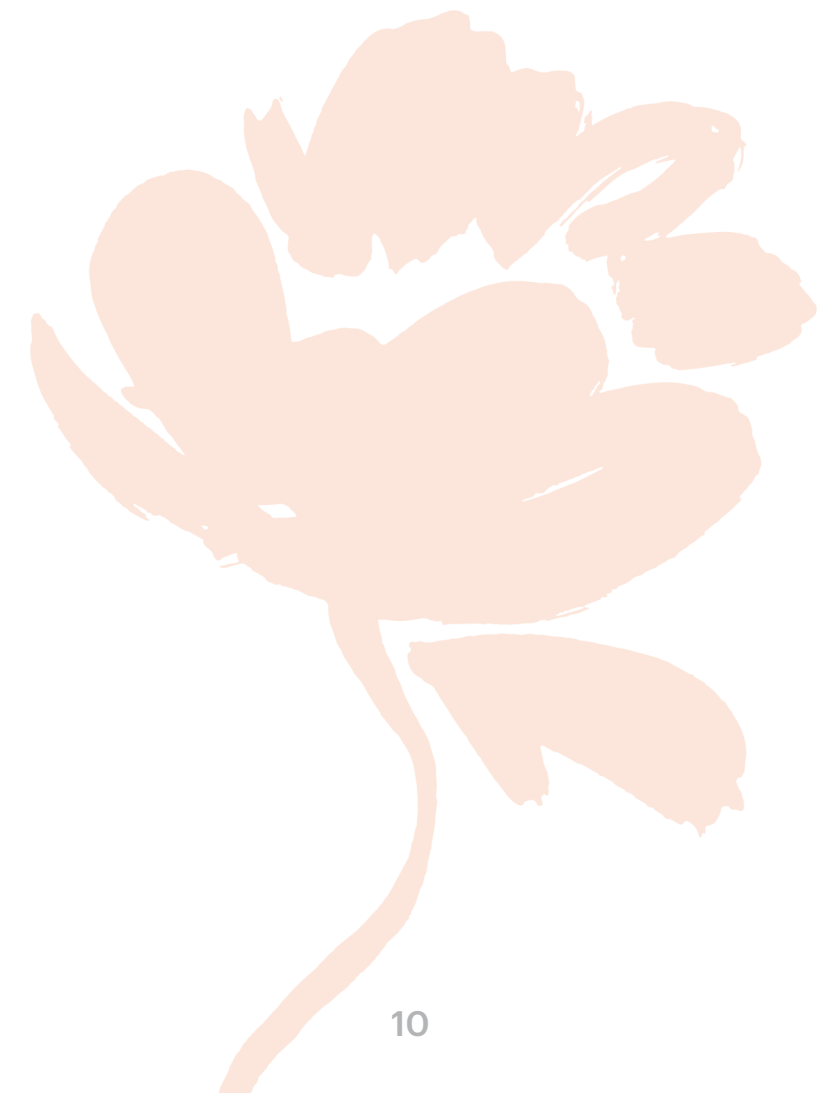
Donor Committee

The testing results obtained during your clinic evaluation will be discussed by the Kidney Donor Committee after your visit. The committee will decide if you are

- 1) approved for donation
- 2) may potentially donate pending review of further testing, or
- 3) unable to donate a kidney due to medical or psychosocial reasons.

Your donor coordinator will discuss the committee decision with you by phone and send you a letter. Your coordinator will assist you in scheduling additional testing if required.

You can withdraw from the evaluation process or your consent for surgery at any time up until donor surgery. We are here to provide you with the information you need to make this important determination. We support your decisions. You may discover during the clinic evaluation that kidney donation is not right for you.



Preparing for Surgery

Once approved for donation, transplant surgery is scheduled. A final crossmatch is done within two weeks of surgery to make sure you and your recipient are still a match.

If you are working, arrange for time off of work. Most donors return to work 2-6 weeks after surgery (average 3 weeks). Your donor coordinator can assist you in completing FMLA and short-term disability forms.

Prior to donor surgery, you will be seen by a transplant surgeon and a nurse practitioner for a pre-operative exam, which will include:

- A review of your medical history and allergies
- Instructions regarding medications the day of surgery
- Pre-operative labs
- Q&A session about surgery

Donors needing lodging the night prior to surgery will be provided a room in the Guest Center. You will not be able to eat or drink anything after midnight prior to your surgery. You will come to the Admissions Office 2 hours prior to your scheduled surgery.



Donor Surgery

Types of kidney donor surgery:

- Laparoscopic nephrectomy
- Robotic nephrectomy
- Single site, laparoscopic nephrectomy

Depending on your kidney anatomy and surgical history, each donor will have a uniquely tailored surgical approach to what is best for the patient. Your surgeon will explain your procedure during your pre-operative visit.

What can I expect during my hospital stay?

- Kidney donor surgery takes about 3-4 hours.
- Surgery is under general anesthesia. An IV is placed in your arm vein to administer intravenous fluids and medications. A urinary catheter (Foley) is inserted into your bladder to measure your urine output before and after surgery.
- After surgery, you are monitored in the post-operative recovery room. When stable, you are transferred to the Transplant Unit.
- Blood tests are done the morning after surgery to ensure your kidney function and blood counts are stable.
- The urinary catheter is removed the day after donation.
- You will be able to go home once pain is controlled with pills, and you are eating a regular diet. Most donors go home the day after surgery.

What are the surgical risks of kidney donation?

- Risks of donation surgery are similar to risks of any general surgery including pain, bleeding, wound infection, urine infection, pneumonia, incisional hernia, injury to other abdominal organs, allergic reaction to anesthesia, and blood clots in the legs. The overall complication rate in donors is 3% or 3 out of 100.
- Approximately 0.3% or 3 out of 1,000 donors need a blood transfusion or repeat surgery for bleeding.
- Major, life-threatening complications occur in 0.03% of kidney donors, or one in 3,000.
- Getting up and walking as early as the evening of surgery will reduce risk of blood clots in your legs.
- Following exercise and lifting restrictions will reduce your risk of hernia.

After you leave the hospital

- Pain may last a few weeks but you should experience an improvement in pain within 2-3 days. You will receive prescription pain medication. If the pain is mild, we recommend using plain Tylenol. Avoid ibuprofen, (Motrin, Aleve, Advil) and other non-steroidal anti-inflammatory medications (NSAIDS).
- The incision sites are closed with special glue. You can shower and let soapy water rinse over the incisions, then pat dry. Please avoid baths and swimming for 4-6 weeks until your incisions heal.
- No driving for at least a week. You cannot drive until you are off prescription pain pills.
- You may feel more tired than normal for 1-2 months after surgery.
- You may not lift more than 10 pounds for 6 weeks.
- We will discuss returning to work (if applicable) between 2-6 weeks post surgery during your first clinic visit.

Post-donation follow-up

- We are committed to monitoring the health of our donors. For your safety, you are followed by our center for a minimum of 2 years after donation.
- Clinic visits are scheduled at 2 weeks, 6 months, 1 year and 2 years after donation. We will do blood work, check your blood pressure and perform a physical exam.
- Clinical data from these visits is provided to the United Network for Organ Sharing. This helps ensure continued efforts are made to optimize donor outcomes nationally.
- We recommend you maintain a primary care provider who knows of your kidney donation and will see you for annual check-ups (recommended for life).
- Any problems you experience related to donation should be reported to our team and documented.

The United Network of Organ Sharing provides a toll-free patient service line to help transplant candidates, recipients, living donors, and family members to understand organ allocation practices and transplantation data. You may call this number to discuss any problem you experience at your transplant center or with the transplant system in general. The toll-free number is **1.888.894.6361**.

Piedmont Transplant Institute has a Transplant Surgeon and Nephrologist available 24 hours a day, 7 days a week, 365 days a year. Toll free number 1.888.605.5888

Piedmont transplant: www.piedmontlivingdonor.org

Financial assistance for donors

- Georgia Transplant Foundation: www.gatransplant.org (financial assistance tab)
- Living donor assistance program: www.livingdonorassistance.org/
- Donor Shield: <https://www.donor-shield.org/kidney-donors/>



Paired kidney donation

- National Kidney Registry (NKR): www.kidneyregistry.org

Compare outcomes of specific transplant programs

- Scientific Registry of Transplant Recipients: www.srtr.org

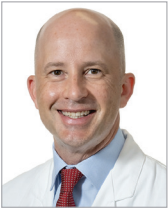
General information regarding organ transplantation

- Organ Procurement and Transplantation Network: <http://optn.transplant.hrsa.gov/>
- United Network for Organ Sharing: www.unos.org
- www.transplantliving.org

Meet the Team

Led by renowned transplant surgeons and nephrologists with decades of collective experience, our multidisciplinary staff takes an integrated approach to care that supports the patient and their caregiver.

Our kidney pancreas transplant team is an interdisciplinary group that includes psychiatrists, pharmacists, transplant nurses, social workers and dietitians. We work together to formulate a customized treatment plan, ensuring that each patient’s medical and psychological needs are appropriately addressed.



Eric Gibney, M.D.
Program Director
Transplant Nephrologist



Sundus Lodhi, M.D.
Medical Director of
Kidney and Pancreas
Transplantation
Transplant Nephrologist



Clark Kensinger, M.D.
Surgical Director of
Kidney and Pancreas
Transplantation
Transplant Surgeon



Samantha Aitchison, M.D.
Transplant Surgeon



John Hundley, M.D.
Transplant Surgeon



Jose Lizcano, M.D.
Transplant Nephrologist



Christina Klein, M.D.
Transplant Nephrologist



Emmanuel Minja, M.D.
Transplant Surgeon



Harrison Pollinger, DO
Transplant Surgeon



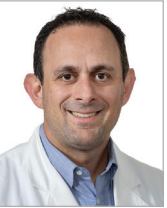
Ana Rossi, M.D.
Transplant Nephrologist



Miguel Tan, M.D.
Transplant Surgeon



Giridhar Vedula, M.D.
Transplant Surgeon



Joshua Wolf, M.D.
Transplant Nephrologist



Andrea Bossie, NP-C
Post Kidney Clinic
404.605.2139



Robin Brackett, NP-C
Kidney
Evaluation Clinic
404.605.4127



Olivia Lee, NP
Post Kidney Clinic
404.605.2139



Tracy Nicholas, NP-C
Kidney
Evaluation Clinic
404.605.5425



Tom Scouller, NP-C
Post Kidney Clinic
404.605.4406

Donor Coordinators:

Leanne Whitehead	Living Donor Kidney Coordinator	404.605.4605
Barbara O’Neal	Living Donor Kidney Coordinator	404.605.4128
Olivia Pruett	Living Donor Kidney Coordinator	404.605.2950

Living Donor Advocates:

Lucy Smith	Living Donor Advocate	404.605.2406
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Real change lives here

piedmont.org/livingdonor