



COLUMBIA UNIVERSITY
*College of Physicians
and Surgeons*

┌ NewYork-Presbyterian Hospital
└ Columbia University Medical Center

The Kidney Transplant Program



The Kidney Transplant Program at
NewYork-Presbyterian Hospital/
Columbia University Medical Center

Front Cover: Kidney transplant recipient David Garcia with his surgeon, Lloyd E. Ratner, MD, at the NewYork-Presbyterian/Columbia University Transplant Celebration in New York City.

NewYork-Presbyterian/Columbia is a world leader in kidney transplantation.

Columbia was the second institution in the nation to perform a three-way "kidney swap."

We now have more ways to increase the donor pool and have shortened the waiting time for transplants.

And we're developing new treatments that can prevent rejection and add years to our patients' lives.



*Lloyd E. Ratner, MD
Surgical Director, Kidney and Pancreas
Transplant Programs*

*David J. Cohen, MD
Medical Director, Kidney and Pancreas
Transplant Programs*

Our mission at the Kidney Transplant Program of NewYork-Presbyterian Hospital/ Columbia University Medical Center is to move patients off the transplant list and back to leading healthy, productive lives. Thanks to new advances developed here, more people than ever have access to a kidney transplant, the most common and successful of all transplant procedures in the United States.

Our surgeons and nephrologists help patients with medical issues that present barriers to transplantation, including pregnant women and women with infertility problems, obese patients, and patients at high risk due to advanced age or health conditions. We routinely perform our living donor transplants laparoscopically, with very small incisions, facilitating a more comfortable and faster recovery. Many of our kidney transplant recipients are also candidates for a “mini-incision” transplant operation that uses a 3-4 inch incision. The majority of our patients are able to be on a steroid-free protocol. Without steroids, patients recover quickly and avoid many serious long-term side effects.

We are committed to facilitating ease of care for our patients. At our special outpatient facility, the Shorin Room in the Milstein Hospital Building, we provide weekend and off-hour attention; our Infusion Center provides infusions and biopsies on an outpatient basis. Throughout the transplant process, we partner closely with donors and recipients and their referring physicians to enable a seamless continuum of care, while helping patients and their families navigate emotional, financial, and logistical concerns.

Our dedication to kidney transplant patients includes the bigger picture as well: establishing protocols to give as many people as possible access to kidney transplant. Our transplant team has found new ways of expanding the donor pool, increasing the number of kidneys available for transplants, addressing the shortage of healthy organs, and reducing waiting times for organs.

In short, we strive to offer the widest range of options to individuals facing end-stage kidney disease. We are gratified to be able to offer them a new lease on life.

A handwritten signature in black ink, appearing to read "Lloyd E. Ratner".

A handwritten signature in black ink, appearing to read "David J. Cohen".

Milestones

1969

Columbia's first kidney transplant is performed under the auspices of Columbia-Presbyterian's Department of Surgery at Delafield Hospital.

1970

Columbia-Presbyterian performs its first transplant of a kidney donated by a living relative.

1980's

Groundbreaking research at Columbia leads to life-saving immunosuppressant drugs Sandimmune®, OKT3®, and Atgam®.

1986

The Columbia team performs the first combined kidney and heart transplant in the New York region.

Columbia launches the Living-Unrelated Donor Program, allowing husbands and wives to donate a kidney to their spouses.

1988

Columbia organizes the first international symposium to investigate cross-species transplantation.

1993

Dr. Lloyd E. Ratner (at Columbia University since 2004) performs the first dual kidney transplant, in which two adult kidneys are transplanted into a single recipient, improving outcomes for patients implanted with kidneys from older donors and increasing access to transplantation.

1994

Columbia's Living-Unrelated Donor Program is expanded to include friends and unrelated loved ones.

Columbia's immunogenetics laboratory develops ways to detect organ rejection earlier.

1995

Columbia sets new guidelines for the use of immunosuppressants in connection with organ transplantation. Dr. Lloyd E. Ratner (at Columbia University since 2004), performs the first laparoscopic removal of a kidney for live kidney donation.

1996

The Columbia team performs its 1,000th kidney transplant, at which time it is able to offer all donors minimally invasive kidney removal.

1997-98

The Kidney Transplant Program is a key participant in a multi-center trial to establish safety of discontinuing steroid therapy after transplantation, leading to Columbia's steroid-free surgery program for patients with compatible donors.

2004

Dr. Lloyd E. Ratner, who performed the world's first kidney swap at Johns Hopkins in 2001, brings this technique to Columbia, which becomes the first medical center in the New York region to perform a kidney exchange.

2006

Columbia becomes the second institution in the U.S.—and the first in the New York region—to successfully complete a three-way kidney swap.



Jonathan and Jason Luque with their mother, Mary Grace. The children, who are twins, were born with congenital kidney problems. The boys received kidney transplants at NewYork-Presbyterian/ Columbia in 2007. Jonathan's kidney was donated by his father, Jason, and Jason's by his mother.

New and Better Options for Patients

Kidney transplantation has come a long way since the first successful transplant between identical twins in 1954 at a Boston hospital. Since then, improvements in surgical technique, medical management, and immunosuppressive therapy have allowed transplantation of kidneys given by family members, genetically unrelated individuals, and deceased donors. In 2006, over 17,000 kidney transplants were performed in the U.S., approximately 60 percent from deceased donors and the remainder from living donors. Success rates have increased steadily, and now exceed 90 percent at the one-year mark and over 50 percent at 10 years.

At NewYork-Presbyterian Hospital/Columbia University Medical Center, we've created programs to address the chronic shortage of organs, developing a system that allocates kidneys according to a patient's need, risk, and potential benefit. We're also finding safe and effective ways to overcome the body's natural tendency to reject a transplanted kidney.

Our Kidney Transplant Program is a national leader in these critical areas. Our goal is to provide transplants for as many patients as possible so they can return to normal, productive lives. We are always looking for new ways to improve all aspects of transplant care.

A larger donor pool

To meet the high demand for donor organs in the New York metropolitan area, we are now selecting organs that may not meet the usual criteria for transplantation but are healthy enough for a successful transplant. Donor kidneys that might go unused in regions with fewer people on the waiting list can be matched with appropriate candidates in areas with greater demand. "Extended criteria" organs may come from donors who are older, have hypertension or diabetes, or from deceased donors who at the time of their death suffered a mild kidney injury.

The use of extended criteria organs has already proven successful in heart, liver, and lung transplantation. This program now allows us to help many older people on the waiting list, and to provide more immediate relief for those who are doing poorly on dialysis.

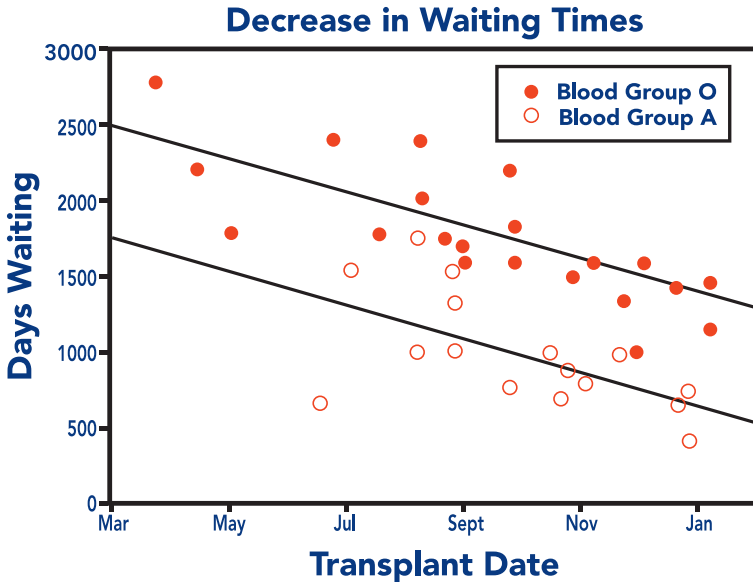
Patients with incompatible donors

We can also offer transplants to a wider universe than ever before, thanks to our new insights into immunology. Until recently, we had to have an exact match between the kidney patient and the donor's antibodies to consider transplantation. We now have new methods to "clean" those mismatched antibodies from the recipient's bloodstream. This allows us to perform incompatible donor transplantation for individuals whose immune systems would normally reject the new organ. The long-term survival rate for incompatible transplants is nearly the same as for compatible transplants at NewYork-Presbyterian/Columbia, and we are one of the few institutions in the world offering this option today.

Shorter waiting times

At NewYork-Presbyterian/Columbia we've created a new strategy to maximize transplant opportunities with our "Top Forty Waiting List." The strategy is designed to assure that our patients are medically, financially and psychologically ready for transplantation, with all their family support systems in place. This way, we decline fewer available kidneys, improve recipient outcomes, and reduce overall waiting times.

During a 10-month period in 2005, we tracked the results of this new system, and found that no donors were turned down due to the recipient being medically or logistically unavailable. On average, waiting times for deceased donor organs were more than cut in half, from six years to between one and three years.



Pioneering Transplant Strategies

Lloyd E. Ratner, MD, Director of Columbia's Kidney Transplant Program, is the pioneer of the kidney swap and the dual kidney transplant. Dual kidney transplantation involves the transplant of two adult kidneys into a single recipient. The transplant of one sub-optimal kidney might not provide sufficient support, but two give excellent kidney function.

"Kidney swaps" allow us to make a workable match between two or more sets of incompatible donors. NewYork-Presbyterian/Columbia was the second institution in the U.S. to perform a three-way swap—a procedure involving six surgeries and requiring six operating teams and six operating rooms. By simply working out the logistics, we can give a lot more people straightforward transplants with excellent long-term results.

"Often family members are willing to donate, but don't realize they can be donors even if their blood types don't match," says Joan Kelly, RN, a kidney transplant coordinator at Columbia. "We provide the best care possible for donors and have established an exemplary system of donor evaluation and advocacy."



*The NewYork-
Presbyterian
Hospital/Columbia
University
Medical Center
Kidney Transplant Team*

Advances in research

As the Transplant Program makes more organs available to more patients, investigators in Columbia University's Departments of Surgery and Medicine are working to make kidney transplant safer, by investigating how to circumvent the body's natural inclination to reject a transplanted kidney.

A multidisciplinary approach

Our patients receive the finest care from a wide range of medical disciplines.

Our joint program with the Department of Obstetrics and Gynecology provides women undergoing kidney transplantation with specialized care in the areas of fertility, pregnancy and perinatal care.

Another program, with the Department of Dermatology, treats skin cancers and other dermatologic issues in transplantation.



Volunteer Firefighter Is Key to Historic Three-Way Kidney Swap

Kidney swaps enable incompatible donors to give to strangers, in return for a matched kidney that can help their own loved ones or family members. The chain of giving can start with a single altruistic donor.

Thirty-nine-year-old Long Island firefighter John McGuinness recently became the lynchpin in a rare three-way kidney swap, performed at NewYork-Presbyterian/Columbia. After a fellow firefighter and friend died in Iraq, John decided to give someone else the gift of life. He contacted the living donor kidney transplant program at Columbia in February. By April, there was a match.

John gave his left kidney to a woman who was failing dialysis. Her husband wanted to donate but didn't have the right blood type, so he gave his kidney to a man on the waiting list whose brother-in-law had offered to help, but had the wrong blood type. Now that brother-in-law was able to donate to another person on the waiting list.

"There are thousands of people on the waiting list for a kidney throughout the state," John says. "These people will die if they don't get the organ they need. If others could step up to the plate and do living donor transplantation, many more could be helped."

All donor kidneys are removed via minimal access surgery. Small incisions mean a faster recovery and minimal discomfort, and donors are usually discharged within two or three days.

"We have over 50 calls a month from people in search of kidneys," says Joan Kelly, RN, a Columbia kidney transplant coordinator. "There's a tremendous need for donors."

To learn more about becoming a donor, contact us at 212-305-6429 or go to www.columbiakidneytransplant.org.



Transplant Patient Now an Active Mom

As a high school student, Fanny Powers suffered from recurring bladder infections and soon discovered that her kidneys weren't working properly. "I had none of the difficult symptoms associated with kidney failure, just low protein in my urine. But there was definitely something wrong."

Fanny was referred to NewYork-Presbyterian/Columbia and treated effectively with medication for several years. By the time she was 23, however, she was on dialysis and having a hard time with it. Her veins were small and hard to access. Her blood pressure rose after every treatment, and she often required hospitalization. Fanny was dangerously underweight, having dropped from 130 to 92 pounds.

At this point, the only alternative was a transplant. Fanny's father donated a kidney, and according to Fanny, "the transplant team at Columbia did such a fine job, you can barely see my scar." Soon Fanny was back at Iona College, pursuing her studies in marketing and advertising.

When it came time to start her family at age 31, Fanny was concerned about her medical history. "I was told that transplant patients usually have their babies early, and that these infants tend to weigh less," she reports. "My son, Luke, was an eight-pound baby, and very sturdy, though he came three weeks pre-term. My protein levels dropped a bit, but they returned to normal right after delivery."

At 35, Fanny is expecting her second child. "This has also been an easy pregnancy. I look back on those early years and can hardly remember what it felt like to be sick. My medical team at Columbia has helped me lead a rich and active life."

Your Kidney Transplant: Four Steps to Health

At NewYork-Presbyterian/Columbia, you will be cared for by a multidisciplinary team including surgeons, nephrologists, immunologists, endocrinologists, nurse coordinators, dietitians, psychiatrists, social workers, and financial counselors.

Once you step through our doors, you will be led through a four-step process designed to provide the best treatment for your own health needs.

Step 1: Evaluation

On your first visit, our kidney transplant team will assess your condition and perform the necessary tests, such as blood work with tissue typing and testing for compatibility with living donors.

Your physician and dialysis unit should supply all relevant medical information to us prior to your initial evaluation.

At this time, you'll meet with your nurse coordinator, surgeon, nephrologist, social worker, and financial counselor. This team will explain your options and tell you whether kidney transplantation is the best option for you.

A new kidney may be donated by a relative, or by a compatible but unrelated living donor. The organ may also come from a deceased donor. All potential living donors are evaluated by a separate team of nephrologists and surgeons. If transplantation isn't right for you, alternative therapies will be recommended.

If you are a candidate for a deceased donor organ, we will register you with the UNOS (United Network for Organ Sharing) waiting list. UNOS, which manages the nation's waiting list, matching donors to recipients 24 hours a day, gives patients a fair chance at receiving an organ, regardless of their gender, race, religion, lifestyle, or financial status.

Step 2: Preparing for your operation

Once you are on the UNOS waiting list, it is important that you keep your transplant coordinator informed of any changes in your health.

If you are receiving a kidney from a living donor, you will have a shorter wait, and the transplant can be scheduled at the convenience of all parties.

The Kidney Transplant Program doesn't require that you relocate, but time is of the essence, and you must be able to reach our hospital in northern Manhattan quickly after receiving notice that an organ is available. Your transplant coordinator will help you plan transportation well in advance of this call.

Step 3: Your transplant operation

During the transplant, a new kidney is implanted through an incision in your lower abdomen. It is standard practice to leave your own kidneys in place. Following a brief stay in our recovery suite, you will recuperate in your room, under the watchful care of our transplant team and our nursing staff. We will guide you and your family in the care of your new kidney, and explain the immunosuppressant and other medications that will be required after surgery.

Step 4: After transplant

Our follow-up team will help you to maintain your health and renew your lease on life. We will work closely with your local physician who will play an active role in your recovery.

In the first few months, you'll return to Columbia for frequent check-ups. We'll review the medications you must take to prevent rejection of your new kidney, monitor the function of your transplant, address any symptoms you may have, and answer any questions that may arise. After several months, less frequent visits will be required.

Contact Us:

Typically, patients are referred to us by their own physicians, but you may also contact us directly to discuss your condition. Our transplant coordinator may be reached at 212-305-6429 and can answer initial questions and schedule an appointment with one of our surgeons and/or nephrologists.

We are located at:

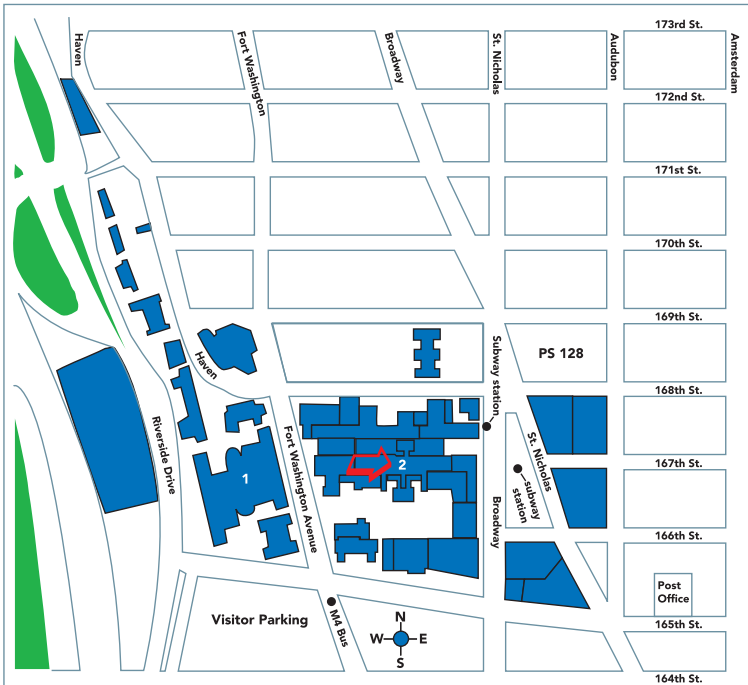
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1. The Milstein Hospital Building
2. The Presbyterian Hospital Building