

Lung Transplant Program Pulmonologists



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UPMC LUNG TRANSPLANTATION PROGRAM



PROGRAM HIGHLIGHTS

- Program inception: 1982
- More than 1,700 adult lung and combined heart-lung transplants performed
- One of the most active ECMO (extra-corporeal membrane oxygenation) centers in the country; ECMO can be used to help patients in respiratory failure transition to transplant

UPMC's Lung Transplantation Program is one of the most recognized and experienced centers in the world for lung and combined heart-lung transplantation. Since the program's inception in 1982, UPMC surgeons have performed more

than 1,700 lung and heart-lung transplantations. This significant volume places our program among an elite few in the world with such extensive experience.

In 2013, for the eighth year in a row, UPMC specialists performed 100 or more lung and combined heart-lung transplants.

UPMC's Lung Transplantation Program is one of the few programs in the nation that has achieved this consistent volume year after year, while maintaining outcomes that are on par with national averages. We have extensive experience in handling patients with a variety of prognoses and conditions. Our surgeons and specialists have used this high level of complex cases to develop treatment regimens that help advance patient care.

For more information about our Heart Transplant Program, including information about our services, publications, research, and free video CME presentations, visit the UPMC Physician Resources website at UPMCPhysicianResources.com/HeartandVascular.

UPMC
PHYSICIAN RESOURCES

UPMC LUNG TRANSPLANTATION PROGRAM

Team Expertise

The UPMC Lung Transplantation Program works within the UPMC Comprehensive Lung Center to provide exceptional care for patients along the entire spectrum of life-threatening lung diseases. Our clinical experience and dedicated support resources have allowed our specialists to medically manage the most complex cases, including pulmonary parenchymal disease that significantly limits life activities despite previous surgical and medical therapy. Our comprehensive approach means patients are evaluated by a multidisciplinary team that can best tailor a treatment plan for advanced lung diseases.

Our team is dedicated to the practice of personalized, patient-centered medicine. Our longitudinal care model, which assigns a coordinator and physician to the patient for the duration of his or her care, is designed with an eye toward providing more attentive care. We share insight and knowledge with our colleagues so that each patient receives the individualized treatment he or she needs, from pulmonary rehabilitation to medical management to surgery.

Extracorporeal membrane oxygenation

Our physicians are pioneers in the use of ECMO, or extracorporeal membrane oxygenation. ECMO replaces the heart and lung function by circulating the patient's blood through an artificial lung; it immediately allows healing to begin by improving the patients' clinical condition so that they can become candidates for transplantation. Because ECMO allows us to keep the patient stable during assessment and treatment, it is a valuable component of our response to patients in acute distress.

UPMC specialists have primarily used ECMO in cases of profound respiratory failure and acute respiratory distress, but ECMO is also useful in the treatment of progressive lung diseases. Our ongoing research on ECMO involves the combination of this technology with stem cell manipulation to improve lung recovery.

Ex vivo perfusion

Perfusing the organ outside of the body (ex vivo organ perfusion) before transplantation may increase the likelihood of a successful outcome. For three to four hours, the donor lung is kept functioning at normal body temperature on a closed loop circuit that simulates in vivo functioning. A blood replacement solution, known as perfusate, protects the organ and keeps it "alive" during evaluation; our experts check to ensure that the lung adequately expands and transfers oxygen to the perfusate.

Other Research

UPMC researchers have been at the forefront in efforts to develop novel immunosuppressive regimens, including induction lymphodepletion and the use of inhaled cyclosporine to minimize rejection and improve long-term outcomes in lung patients. These regimens may also help to reduce drug side effects.

Our faculty also are involved in a Phase IIA observational non-randomized pilot investigation to evaluate the safety, efficacy, and pharmacokinetics of sodium nitrite when administered to the procured lung and lung transplant recipient, for the prevention of primary graft dysfunction.

Our Outcomes

As a pioneer in the field of solid-organ transplantation, our program has been consistently challenged with some of the most difficult and complex cases. Despite offering transplants to patients with complex medical problems, we maintain outcomes that are on par with national benchmarks.

To view specific information about our outcomes, including one- and three-year survival rates, please visit the Scientific Registry of Transplant Recipients at www.SRTR.org.

The Transplant Process

- **Preliminary Clinical Review** – A pretransplant nurse coordinator collects the patient's medical history, radiology studies, recent bloodwork, and current physical findings, which is then reviewed by the lung transplant team.
- **Financial Authorization** – Before scheduling a transplant evaluation, a UPMC transplant credit analyst and insurance case manager will work together to determine the extent of insurance coverage for the individual patient.
- **Evaluation** – Typically conducted on an outpatient basis, transplant evaluation requires a weeklong stay in Pittsburgh, during which a multidisciplinary team of specialists provide diagnostic testing and consultation.
- **Pretransplant** – The UPMC transplant team partners with the referring physician in the ongoing care of the patient once he or she is listed for an organ with the United Network for Organ Sharing (UNOS).
- **Transplant Surgery and Hospitalization** – Once an organ becomes available, the lung transplant coordinator notifies the patient, who then reports for admission to UPMC and is prepped for surgery.
- **Long Term Collaboration for Follow up Care** – The lung transplant team provides primary care during hospitalization and collaborates with referring specialists to provide long-term and follow-up care after discharge.

Outreach and Education

We recognize that open dialogue with referring physicians is essential in building strong relationships and better care for patients. Our staff welcomes the opportunity to speak with individual physicians, group practices, or affiliated organizations to provide information on services and physician specialties, coordinate contacts with key transplant staff, and provide an update of transplant program research studies. For more information, contact our outreach liaison at 412-647-5010 or cttransplant@upmc.edu.

Who is a candidate?

- Patients with life-threatening lung diseases, including pulmonary parenchymal or vascular disease that significantly limits life activities despite previous surgical and medical therapy.
- Patients with chronic obstructive pulmonary disease (COPD), pulmonary fibrosis, cystic fibrosis, alpha 1 antitrypsin deficiency, and others.
- Patients who may benefit from a minimally invasive approach to lung transplantation.

How to refer:

Members of our team are available for consults **24 hours a day, seven days a week**. The selection criteria shown above are simply a guideline – we encourage you to get in touch if you have questions about eligibility of your patient. It's never too early to consult us, and we can begin the intake process with very basic information. You may call, fax, mail or email us all related information and medical records. For a convenient online patient referral form, visit upmc.com/lungtransplant.

Contact Us

UPMC Lung Transplantation Program
UPMC Presbyterian, Suite C-900
200 Lothrop St.
Pittsburgh, PA 15213
Attn: Lung Transplant Coordinators
Fax: **412-864-5145**
Email: cttransplant@upmc.edu

Visit www.upmc.com/LungTransplant to fill out a patient referral form.

UPMC's 24-hour physician referral service:
1-800-544-2500

Once we receive the completed forms and records, the patient will go through financial clearance, interview, and scheduled for evaluation if the program director determines the patient is a lung transplant candidate. This process may take approximately two to four weeks.

For Your Patients

To learn more about lodging and other accommodations for your patients, visit www.upmc.com/lungtransplant.

CASE STUDY

As a small child, the patient was diagnosed with cystic fibrosis, which was diminishing his ability to breathe. Since receiving a double lung transplant as an adult in August 2002, he has been able to engage in activities that he once enjoyed but found difficult or impossible due to his health. Now he jogs, plays hockey, and is able to lead a normal life. His care and recovery at UPMC Presbyterian inspired him to pursue a career in health care. A physician assistant since 2007 at the Thomas E. Starzl Transplantation Institute, he has the opportunity to work with patients who are anticipating or recovering from transplants.

1982	1985	1988	2012	2013
Inception of UPMC's Heart/Lung Transplant Program	Cardiothoracic surgeons perform UPMC's first single lung transplant	Cardiothoracic surgeons perform UPMC's first double lung transplant	UPMC Cardiothoracic transplantation program surpasses 3,000 cardiothoracic transplants	For the 8th year in a row, UPMC performs 100 lung transplants