

# LUNG TRANSPLANT PROGRAM



**The Pediatric Transplant Center** at Children's Hospital Boston gathers together physicians, nurses and support specialists into a collaborative, interdisciplinary team. Programs for heart, lung, kidney, liver, intestine & multivisceral and stem cell transplant actively share knowledge and best practices to optimize outcomes for patients and their families.

## About Us

The Lung Transplant Program at Children's Hospital Boston evaluates children and young adults who are potential candidates for transplantation and manages the care of children who have received transplanted lungs. A lung transplant is an operation performed to replace a diseased lung with a healthy one from another person.

## Why is a lung transplant recommended?

Lung transplants are a treatment option for children and young adults with severe cystic fibrosis (CF), end-stage lung disease and other chronic lung diseases. CF is the most common underlying disease that may require a lung transplant among children, adolescents and young adults. Some of the other diseases that may require a lung transplant include: pulmonary hypertension (PH), a rare blood vessel disorder that results in high blood pressure in the lungs; pulmonary vein stenosis (PVS), a condition that obstructs the flow of oxygen-rich blood from the lungs back to the heart; and pulmonary fibrosis, a disease that causes scarring of the lungs.

## Where do transplanted organs come from?

The majority of lungs that are transplanted come from deceased organ donors. This type of transplant is called a cadaveric transplant.

In rare circumstances, a living individual may donate a portion of a lung to a child. Living donor procedures are not currently performed at Children's Hospital Boston.

## How are transplanted organs allocated?

The United Network for Organ Sharing (UNOS) is responsible for transplant organ distribution in the United States. UNOS oversees the allocation of many different types of transplants, including liver, kidney, pancreas, heart, lung and cornea. UNOS receives data from hospitals and medical centers throughout the country regarding adults and children who need organ transplants.

Criteria have been developed to ensure that all people on the waiting list are judged fairly as to the severity of their illness and the urgency of receiving a transplant. Once UNOS receives the data from local hospitals, people waiting for a lung transplant are placed on a waiting list and given an allocation score. The people who would benefit most from a lung transplant are placed highest on the allocation list, and are given first priority when a donor organ becomes available. This allocation score applies to adults and children who are age 12 or older. For children younger than 12 years old, lungs are allocated according to the time accrued on the waiting list.

## Evaluation for a lung transplant

The evaluation for a lung transplant is quite extensive. First, an informational visit allows you to meet the transplant team members and discuss the option of a lung transplant. This is an opportunity for you to ask questions and share any concerns you may have about transplantation.

We encourage you to bring family and close friends to this initial meeting. If you and the transplant team agree that a lung transplant would be beneficial, you will then be scheduled for an evaluation.

Your child will meet with a number of specialists during the evaluation process. This is to ensure that all of your child's medical needs are addressed prior to the transplant. Some of the specialists your child will meet include a cardiologist, an anesthesiologist, an infectious disease specialist, an otolaryngologist, a psychiatrist and a physical therapist, among others. A

number of radiologic tests, pulmonary function tests and blood tests are also performed throughout the evaluation process.

While it can be a time-consuming and trying experience, a thorough evaluation is critical to achieving the optimal outcome. Our physicians, nurses, child life specialists and support staff are committed to making the process as positive and comfortable as possible for patients and their families.

## Our specialists

The lung transplant physicians at Children's Hospital Boston are among the most rigorously trained and experienced in the country. We have established a close collaboration with the adult lung transplant program at Brigham and Women's Hospital. Visit [www.childrenshospital.org/lungtx](http://www.childrenshospital.org/lungtx) and click on 'Meet the Team' for professional biographies of our team:

- Gary Visner, DO
- Craig W. Lillehei, MD
- Francis Fynn-Thompson, MD
- Debra Boyer, MD

## Research

Our research involves basic science studies and lung transplant models evaluating mechanisms of rejection and possible novel therapies improving long-term lung graft survival.

Our physicians are actively involved in research focused on the management of pulmonary disease both before and after transplant. Our physicians are members of the International Pediatric Lung Transplant Consortium (IPLTC). Cystic fibrosis and immunology figure prominently in the areas under investigation.

Current research projects include:

- Quality of life in pediatric lung transplantation (IPLTC)
- Inhaled cyclosporine: prevention and treatment of chronic rejection
- The impact of change in the lung allocation score on lung transplant outcomes in the pediatric population (IPLTC)

## Referrals and consultations

Appointments for an informational visit can be made during our office hours: Monday through Friday, 9am - 4pm. To schedule an appointment, call 617-355-6681 or visit [www.childrenshospital.org/lungtx](http://www.childrenshospital.org/lungtx).

## Survival rates, 2000-2002

(n=8, including retransplantation)

Survival	Rate
1 year	100%
3 years	75%
5 years	75%

For transplants performed between January 2000 and October 2007, the 1-year survival rate is 76% (n=21, including retransplantation).