

Lung Transplant



230+

Number of pediatric lung transplants in which our medical and surgical directors have participated during their careers

7.9

Average age (in years) of children who receive lung transplants in our program since inception (2014–12/31/2021)

100%

One-year post-transplant patient survival

(Based on 7 patients performed 7/1/2018–3/12/2020 and 6/13/2020–12/31/2020)

Source: Scientific Registry of Transplant Recipients, January 2022 Report



Cincinnati Children's is ranked #2 in Pulmonology and Lung Surgery and #3 in the nation among Honor Roll hospitals.

The Lung Transplant Team at Cincinnati Children's Hospital Medical Center provides comprehensive, multidisciplinary care for pediatric patients whose complex and challenging end-stage lung disease has not responded to other medical and surgical therapies. Our team is one of very few in the United States offering lung transplant services for infants as small as 5 kilograms.

HOW WE'RE DIFFERENT

The program is part of a strong tradition of solid organ transplantation at Cincinnati Children's, where transplant teams have performed more than 300 solid organ transplants in the last five calendar years. Our team of pediatric specialists provides compassionate, effective care for patients and their families. We participate in national research initiatives and collaborate with other pediatric centers as part of our commitment to optimize patients' clinical outcomes, ensure their safety and enhance their quality of life.

- Our core team of pulmonary medical providers, cardiothoracic surgeons and nurses has more than 30 years of combined pediatric lung transplant expertise.
- The team also includes a dedicated respiratory therapist, social worker, dietician, clinical pharmacist and child life specialist.
- All team members are dedicated to providing individualized, family-centered care, and they maintain strong, collaborative partnerships with other experts at Cincinnati Children's, including those in clinical psychology, physical therapy and infectious disease. This results in truly comprehensive care for our patients.
- Weekly care conferences provide opportunities for the team to discuss every patient and ensure that we are addressing their needs in a thoughtful, thorough way.
- Chronic rejection remains the greatest challenge to long-term survival in pediatric lung transplant recipients. Through the use of home monitoring equipment and real-time results, our goal is to identify subtle changes in lung function and institute treatment as soon as possible. By initiating early intervention measures, we potentially can slow the progression of chronic transplant rejection and treat other complications successfully.

CONDITIONS THAT MAY LEAD TO LUNG TRANSPLANT

- Bronchiolitis obliterans
- Childhood interstitial lung diseases
- Cystic fibrosis
- Filamin A mutations
- Pulmonary fibrosis
- Pulmonary hypertension
- Pulmonary vascular disease
- Surfactant protein deficiencies

TREATMENT TEAM

Pediatric Transplant Pulmonology

Don Hayes, MD, MS, MEd
Director, Lung Transplant

Christopher Towe, MD
Director, Rare Lung Diseases

Gregory Burg, MD
Pulmonologist

Pediatric Thoracic Surgery

David Morales, MD
*Surgical Director, Director,
Congenital Heart Surgery*

James Tweddell, MD
*Cardiothoracic Surgery Director
and Executive Co-Director, Heart
Institute*

David Lehenbauer, MD
Cardiothoracic Surgeon

David Winlaw, MD
Cardiothoracic Surgeon

Nursing

Rebecca Rengering, RN
Clinical Director

Brandi Mahar, RN
Transplant Coordinator

Lauren Rosenbloom, RN
Transplant Coordinator

Social Worker

Guido DiMarco, MSW, LSW

Nutrition Therapy

Amy Reed, RD, LD

Pharmacy

Leanna Darland, PharmD

Nurse Practitioner

Kassie Padgett, APRN, CNP



TREATMENT APPROACH

Our team strives to create a positive, supportive atmosphere for patients and families throughout the evaluation, treatment and follow-up process.

Pre-transplant planning begins before the patient's first visit, when the team conducts a comprehensive review of all medical records. The initial patient evaluation takes four days and includes a thorough examination, specialist consults, diagnostic testing and care conferences with the family. Using the results of the evaluation, our team develops a comprehensive, personalized care plan that includes each specialist's findings and recommendations.

Patients who are placed on the transplant list return to the clinic for routine visits so that our team can monitor their complex medical needs. They also participate in physical and occupational therapies to improve strength, range of motion, flexibility and other areas of concern.

Following transplant, our team provides immediate follow-up care through clinic visits and remote monitoring. After the patient returns home, our specialists are available to work closely with the local primary care physician and pulmonologist to ensure the best outcome possible.

We offer full cardiopulmonary support for patients with failing lungs and/or heart, including lung assist devices and extracorporeal membrane oxygenation (ECMO). Our team has significant experience in caring for critically ill children requiring these devices and will consider bridging patients to lung or heart-lung transplantation.

RESEARCH TO IMPROVE CLINICAL CARE POST-TRANSPLANT

Cincinnati Children's researchers are focused on identifying new therapies and care protocols for pediatric lung transplant recipients. Areas of research include:

- **Identifying early signs of chronic rejection through sophisticated imaging techniques.** In collaboration with the Pulmonary Imaging Research Center, we utilize technologies such as hyperpolarized-gas and UTE MRI.
- **Identifying molecular markers of acute cellular rejection in lung transplant recipients.** In collaboration with scientists at the University of Cincinnati, Cincinnati Children's is using single cell RNA sequencing to determine molecular markers in bronchoalveolar fluid and lung allograft tissue.
- **Measuring quality of life scores longitudinally as part of an initiative called the Health Related Quality of Life Project.** The goal is to examine how events following a lung transplant impact the way patients and caregivers perceive their quality of life.
- **Establishing a clinical site for NIH funded multi-institutional study.**

**For urgent issues, or to speak with the specialist on call 24/7,
call the Physician Priority Link® at 1-888-987-7997.**