



The Transplant Center

hope renewed

The Transplant Center at The Children's Hospital of Philadelphia is a centralized resource for the Hospital's multiple transplantation programs. By providing a comprehensive administrative framework for all solid organ, blood and marrow transplant services, the Center makes the transplant process more streamlined and efficient for all involved: medical staff, referring physicians, organ procurement agencies, case managers and, most important, patient families.

We understand that care of transplant patients is a long-term commitment, reaching far beyond the actual transplant procedure. The Children's Hospital of Philadelphia was the nation's first pediatric hospital and today is considered its finest. CHOP has a long and distinguished history of pioneering advances in pediatric care in many areas, including transplantation.

Each of the Hospital's transplant services is comprised of a multidisciplinary team, bringing a wide range of expertise to each patient. We provide an extensive range of support services, including pathology, nutrition, psychology, radiology and social work. CHOP's transplant capabilities are further enriched by its exceptional depth and breadth of experience in every pediatric subspecialty.

Children's Hospital is also a world leader in pediatric research, bringing new discoveries rapidly from bench to bedside. The creation of the Transplant Center fosters more streamlined data collection, benefiting our many basic and clinical research investigations. The Hospital's Center for Applied Genomics, opened in 2006, is developing the world's largest research enterprise devoted to pediatric genomics. The work undertaken here may one day have profound implications for transplant patients everywhere.

MANY STRENGTHS, A SHARED COMMITMENT

Here, a few highlights of the programs that make up the Transplant Center:

Blood and Marrow Transplantation

- Children's Hospital houses one of the nation's largest pediatric centers for blood and marrow transplantation.
- Transplants can be performed using matched and mismatched related donors, unrelated donors and unrelated cord blood.
- Graft engineering is used to reduce the risk of severe graft vs. host disease with unrelated or partially matched related donor transplants. We also have the ability to use mismatched donors for patients for whom a full match is unavailable.
- The program has special expertise in tandem stem cell transplants to improve survival for neuroblastoma.
- All aspects of the program — clinical, apheresis/collection and stem cell laboratory — are accredited by the Foundation for the Accreditation of Cell Therapy (FACT).

Kidney Transplantation

- The Kidney Transplant Program at Children's Hospital is one of the largest pediatric programs in the nation.
- Children with congenital urological abnormalities make up 30 percent of our patients with Chronic Kidney Disease (CKD). The Kidney Transplant Program collaborates closely with surgical staff in the Hospital's Division of Urology.
- Using plasmapheresis along with standard immunosuppression, the program has had significant success in managing children with focal segmental glomerulosclerosis, the most common type of glomerular injury that causes end-stage kidney disease.
- The Nephrology team has special expertise in all types of dialysis.
- Our team has special medical and surgical expertise in the care of infants who need kidney transplants.
- The program provides comprehensive medical, nutritional and psychological care, as well as expert support from social workers.

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Heart Transplantation

- Heart transplantation services are provided under the auspices of the Hospital's renowned Cardiac Center, a world leader in comprehensive care for all types of congenital and acquired pediatric heart disease.
- The Heart Transplant Program cares for many children with complex medical histories, who often consider Children's Hospital their last hope.
- CHOP is one of the few centers in North America to use the Berlin Heart ventricular assist device as a bridge to transplant for infants and small children with end-stage heart failure.
- CHOP offers a strong cardiac rehabilitation program, with emphasis on creating pre-transplant fitness regimens to help children reach optimal condition for surgery.
- Clinical research in heart transplantation is focused on new medical therapies and care protocols to improve outcomes for children awaiting transplant and transplant recipients. Areas of emphasis include: ABO incompatible transplantation, special regimens for patients with elevated PRA (pre-sensitized to a large percentage of typical HLA antigens), and ongoing internal data review and critical assessment of immunosuppression protocols and general post-transplant care.

Liver Transplantation

- The coordinated Liver Transplant Programs of The Children's Hospital of Philadelphia and the Hospital of the University of Pennsylvania (HUP), together form one of the nation's largest.
- The combined efforts of Children's Hospital and the adult liver program at HUP allow for increased split liver transplantation and living donor activity, effectively making more organs available for pediatric patients. Close collaboration also allows for a smooth transition from adolescent to adult care.
- Survival outcomes exceed the national average as reported by the SRTR (<http://www.ustransplant.org/>).
- The program is strengthened by one of the nation's largest pediatric hepatology services, with world-renowned experts in liver disorders.

- CHOP's specialists in Biochemical Genetics provide additional expertise in metabolic diseases, allowing tailored management for infants and children with rare metabolic disorders.
- The surgical team has extensive expertise in all forms of liver transplantation and complex hepatobiliary procedures, including whole organ and segmental split deceased donor grafts, living donor transplants and transplantation in small infants.
- Surgical expertise extends to resection of liver tumors and reconstruction of congenital or acquired biliary anomalies.
- Active areas of research include: origins of pediatric liver and biliary disease, molecular mechanisms of liver regeneration, preventing rejection and promoting tolerance of the transplanted liver graft, gene therapy and mechanisms to enhance liver recovery after transplantation.

Lung Transplantation

- Children's Hospital is home to one of the nation's few dedicated pediatric lung transplantation programs.
- CHOP is renowned for its expertise in cardiothoracic surgery. Thomas L. Spray, M.D., surgical director of the program, is recognized worldwide as a pioneer in the field.
- The program also has particular strength in pulmonary medicine; its team of specialists has direct expertise in pediatric lung transplant.
- CHOP offers extensive options for end-stage lung disease, including the Pulmonary Hypertension Program, resources for technology-dependent patients, and strong cardiac and rehabilitation services.
- Immediate research emphasis is on methods to improve graft survival through the use of lung transplant models.
- Program research also will focus on improved pulmonary testing methods, pharmacokinetic studies, and advances in exercise and rehabilitation.

To learn more about the Transplant Center or specific transplantation programs at Children's Hospital, call **1-800 TRY CHOP** or visit us at www.chop.edu/transplant.

