

UVA Children's Hospital Heart Center

Physicians can feel confident referring their pediatric cardiology patients to UVA Children's Hospital Heart Center.

Our center is part of UVA Children's Hospital, the only children's hospital in Virginia with national top-50 specialty rankings by *U.S. News & World Report* for both pediatric cardiology and heart surgery and neonatology for 2016-2017.

Additionally, the publication ranked UVA Children's Hospital "excellent" in heart transplant; "above average" in congenital heart, adequacy of nursing staff, infection prevention and clinical research; and "high" in Norwood procedure survival. We invite you to compare our scorecard, available on the *U.S. News & World Report* website, to other Virginia children's hospitals.

UVA Children's Hospital Heart Center offers:

- The most comprehensive congenital heart center in Virginia
- The largest fetal heart program in Virginia treating high-risk infants
- The largest pediatric pulmonary hypertension clinic and the only Hypertrophic Cardiomyopathy Association Center of Excellence in Virginia

- A Cardiovascular Genetics Clinic with advanced diagnostic testing and counseling for all genetic cardiac diseases, including cardiomyopathy, aortopathy and other connective tissue diseases, as well as genetic arrhythmias

Conditions Treated

We provide evaluation and treatment for a vast array of cardiovascular issues seen in pediatric and adolescent medicine, including:

- Chest pain
- Congenital or acquired heart disease
- Dyslipidemia
- Heart failure
- Heart murmurs
- Heart rhythm disorders
- Hypertension
- Syncope and fainting

Services

- Prenatal evaluation and management of fetal heart disease
- Genetic evaluations (Down syndrome, connective tissue disorders, cardiomyopathy, etc.)
- Noninvasive diagnostics, including echocardiograms, ECGs, exercise stress tests, Holter monitors and event monitors



Congenital Heart Surgery

UVA Children's Hospital Heart Center is committed to providing the most advanced surgical treatment for virtually every congenital heart defect. Led by James Gangemi, MD, FACS, the program recently welcomed Mark Roeser, MD, who completed his training at Texas Children's Medical Center in 2015. Both are board-certified in congenital heart surgery.

UVA has an overall two-star rating in the Spring 2016 STS Congenital Heart Surgery Public Report. UVA has one of only 20 congenital heart surgery programs in the country to be named an Optum Center of Excellence, making UVA eligible for participation in preferred provider networks for complex medical conditions.

Procedures Performed

In fiscal years 2013 to 2015, UVA pediatric congenital heart surgeons performed more than 800 surgeries. We have experience in the diagnosis and treatment of the full range of congenital heart and vascular defects. Surgeries we perform include:

- Single-ventricle palliation, including the Norwood procedure
- Arterial switches
- Truncus arteriosus repairs
- Total anomalous pulmonary venous return repairs
- Interrupted aortic arch repairs
- Complex aortic arch reconstructions
- Complex valve repairs

Our Team

Our multidisciplinary team of pediatric cardiology specialists have advanced training in congenital heart disease. This includes surgeons who have the skills to address even the most complex correctable heart defects and interventionists who deploy the latest minimally invasive catheter-based solutions.

For children with rhythm disorders, UVA has the only pediatric electrophysiologist in the area, offering pacemaker and defibrillator placement, interventional treatment of arrhythmias and medical treatment of simple and complex arrhythmias. We also draw on radiologists who use the full range of imaging technologies to help us evaluate our patients.

The team also includes:

- Two cardiac intensivists who focus exclusively on pediatric cardiology within our Pediatric Cardiac Intensive Care Unit (PCICU) for postoperative care and heart disease deterioration
- Specialized nurses and therapists in our pediatric cardiac step-down unit, which aims to improve care and provide earlier discharge
- Pediatric operating room team, staffed by pediatric specialists, including pediatric cardiac anesthesiologists and perfusionists
- Pediatric ECMO Team, for 24/7 care with neonatal and pediatric transport teams capable of pre-ECMO and ECMO transport

Innovative Programs

We have established a number of innovative programs that enable us to provide more comprehensive, customized care for children with heart defects.

Cardiovascular Genetics

Our Cardiovascular Genetics Clinic evaluates patients with cardiac conditions known to be associated with chromosome or genetic abnormalities. This allows us to identify other family members who may benefit from further assessment.

Single Ventricle Interstage Monitoring

UVA also has a well-established single ventricle interstage monitoring program, leading to improved interstage surgical outcomes.

Interventional Cardiology

In our advanced interventional catheterization lab, we treat common and rare congenital and acquired lesions. In addition, we perform percutaneous valve replacements and participate in clinical trials that allow us to offer the latest advances in pediatric interventional cardiology.

Fetal Heart Program

At UVA, we offer the largest fetal heart program in Virginia treating high-risk infants. Our program is staffed by specialized pediatric echocardiographers, enabling us to diagnose congenital issues prior to birth, develop a treatment plan and support family members preparing to care for their children. Last year, we performed more than 680 fetal echocardiograms.

Pediatric Heart Transplantation

UVA has the only comprehensive pediatric heart transplant and pediatric mechanical circulatory support program in Virginia. Our program completed its first pediatric heart transplant in 1991 and performed an average of eight pediatric heart transplants during the past three fiscal years.

Children who receive a heart transplant at UVA have a three-year survival rate of 100 percent compared to the national average of 88.42 percent, according to the Scientific Registry of Transplant Recipients Program-Specific Report, published in January 2017.

In the case of heart failure, we have dedicated pediatric perfusionists who can place children on temporary life support systems.

UVA is a pioneer in the use of mechanical circulatory support in children awaiting transplant. We also offer desensitization therapy for patients sensitized to HLA antigens and ABO-incompatible transplants.

Cardiac Arrhythmia

UVA pediatric heart rhythm specialists diagnose and manage the full range of cardiac arrhythmias, utilizing advanced approaches such as cardiac ablation to treat children with supraventricular tachycardia (SVT), atrial tachycardias, occasional ventricular tachycardia, long QT syndromes and other heart rhythm disorders.

A comprehensive device clinic allows us to place and monitor pacemakers and ICDs in both pediatric and adult congenital heart patients. For those with inherited cardiac arrhythmias, there is a specialized clinic that includes genetic counseling to help ensure early diagnosis and intervention, as well as family engagement and support.

Pulmonary Hypertension Clinic

UVA Children's Hospital Heart Center has the largest pediatric pulmonary hypertension clinic and the only Hypertrophic Cardiomyopathy



Association Center of Excellence in Virginia. We offer a complete, extensive evaluation to diagnose primary and secondary pulmonary hypertension, and provide the most current comprehensive treatment of pediatric PAH, including intravenous, subcutaneous and oral prostacyclin therapies.

Neuro-Cardiac Development Clinic

In response to research showing that children with congenital heart disease are at greater risk for developmental delays, UVA launched a Neuro-Cardiac Clinic in 2013. This effort brings together the divisions of Pediatric Cardiology and Developmental Pediatrics to provide easy access to a neurodevelopmental assessment and, if needed, direct referrals to the support services that can further a child's ability to grow and succeed.

With ongoing assessments — up to age five or beyond, depending on the patient — our physicians evaluate and diagnose early signs of delay in the following areas: language, gross motor skills, fine motor skills, overall cognition and socioemotional growth. If a concern is identified, patients have access to the vast resources of UVA Children's Hospital, including speech/language, physical and occupational therapy, nutritionists, educators, psychologists and others.

For a physician consult or to refer a patient to UVA Children's Hospital Heart Center, call **800.552.3723**.

UVA Children's Hospital

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