

Children's Heart Care

Symptoms and Treatments



Advent Health
for Children



Extraordinary Care for Extraordinary Kids

A hospital can be an overwhelming place, especially for children and their parents. AdventHealth for Children was designed from the ground up to be a comforting, nurturing and immersive environment that helps ease the stress and anxiety associated with a hospital stay.

At AdventHealth for Children, your child's care will be handled by a highly skilled team of medical professionals with extensive experience in pediatric cardiology. We treat a wide range of conditions from arrhythmias to congenital heart defects, using highly advanced tools to accurately diagnose potential conditions and deliver the treatment that gives your child the best chance for a positive outcome.





A Healing Experience Designed for Your Child

One of the premier children's health systems in the nation, AdventHealth for Children sets the standard for innovation, quality and comprehensive care.

With the help of Walt Disney Imagineering and input from patients, families and clinicians, our seven-story, technologically advanced facility in Orlando features a child-centered healing environment. Each floor of the Walt Disney Pavilion at AdventHealth for Children in Orlando is themed to natural environments inspired by classic Disney-animated movies, such as *The Little Mermaid*, *The Lion King*, *Brother Bear* and *The Jungle Book*.

At our AdventHealth Tampa campus, children will delight in the whimsical pirate-themed paradise that includes friendly tropical animals and interactive technology designed to put them at ease during their stay.

Our priority at AdventHealth for Children is to do everything we can to make your child, and your family, feel whole. We provide the highest quality of care possible, giving your child the best chance at a full recovery. And we want you to feel absolutely confident that entrusting your child's care to our physicians and nurses is the right decision.

We care about your care.

Learn more about some of the conditions and disorders we treat.

Arrhythmias

Typically, the four chambers of the heart contract in a synchronized order, pumping blood from the heart to the lungs to be oxygenated, then throughout the body to deliver oxygen and nutrients. Sometimes, though, the timing of these contractions can be too fast or too slow, or the heart can beat in an irregular pattern. This is known as an arrhythmia and it can cause dizziness, palpitations and even loss of consciousness. Fortunately, many arrhythmias can be treated through a procedure called percutaneous ablation, in which the tissues that are altering the electrical signals in the heart are subjected to a painless radiofrequency current to permanently correct the timing of contractions.

Heart murmurs

A heart murmur occurs when blood flows abnormally through your child's heart valves and makes a whooshing or swishing sound. This can be detected through regular wellness check-ups or if your child is experiencing various symptoms. Although heart murmurs are common and are often not cause for alarm, it is recommended to seek a pediatric cardiologist for an evaluation to ensure there is no underlying heart condition or disease.

Hypoplastic Left Heart Syndrome

This condition, also known as HLHS, occurs when the atrium and ventricle on the left side of the heart are underdeveloped and the mitral valve that separates the two chambers is too small to allow for adequate blood flow or completely closed. Because the left ventricle pumps blood to the rest of the body, babies with HLHS can have severe circulation problems and exhibit cyanosis (blue or purple skin, lips and nails), as well as breathing problems, difficulty in feeding and lethargy. Left untreated, HLHS can be fatal. However, with several surgical procedures performed in the child's first three years, these defects can be corrected with a high level of success.

Patent Ductus Arteriosus

In the womb, most of the blood bypasses a developing baby's lungs, instead traveling through the ductus arteriosus, or DA. After the baby is born, the DA typically closes on its own and the blood flow starts to travel to the lungs permanently. Patent ductus arteriosus is a condition where the DA doesn't close and the flow of blood to the lungs isn't properly regulated. Children with this condition may show a range of symptoms such as breathing difficulties right after birth, rapid breathing, a heart murmur, poor growth, problems with feeding and periodic bouts of pneumonia. In most cases, we recommend waiting until the child is one to two years old before performing surgery. However, if the condition is life-threatening, surgery should be performed immediately to close the DA.

Patent Foramen Ovale

As a baby develops in the womb, oxygen-rich blood from the placenta bypasses the lungs by flowing through the foramen ovale, a hole between the two upper chambers of the heart. Usually, the foramen ovale closes on its own after birth. Patent foramen ovale occurs when this hole does not close and blood continues to pass through it. This condition is fairly common and usually doesn't present any health issues. In rare cases, however, it can cause a clot in the right side of the heart, which can lead to a stroke or heart attack if left untreated. When a case of patent foramen ovale does require treatment, the hole is typically closed with a catheter or during a surgical procedure.

Pulmonary Atresia

Pulmonary atresia is a condition where the pulmonary valve that regulates blood flow from the heart to the lungs doesn't form properly and blocks the flow of blood, causing cyanosis. The symptoms typically include a blue tint to the skin, lips and nails, as well as shortness of breath, difficulty feeding and a heart murmur. While pulmonary atresia can sometimes be detected before birth, it is often discovered after birth when symptoms start to present. There are several treatment options, ranging from balloon catheterization to surgery, depending on specific characteristics of the child's heart.

Tetralogy of Fallot

Tetralogy of Fallot, also known as TOF, is a condition where the heart has several malformations, including a large hole between the ventricles, an enlarged aorta straddling the hole, a narrowing of the pulmonary artery that leads to the lungs, and a thickened right ventricle. Newborns with TOF often turn blue in the first

three months. Symptoms may also include shortness of breath, rapid breathing, fainting, irritability and fatigue, as well as abnormally round-shaped nails on the fingers and toes. The only treatment option for TOF is surgery to repair the hole between the ventricles and improve the flow of blood to the pulmonary arteries.

Tricuspid Atresia

Tricuspid atresia is a condition where, instead of the valve that normally sits between the right-side atrium and ventricle, solid tissue exists, blocking blood flow between the two chambers. This prevents blood from traveling to the lungs for oxygenation. Children with tricuspid atresia tend to exhibit signs of cyanosis, including a blue or purple tint to the skin, lips, or nails, as well as a heart murmur, shortness of breath, difficulty feeding, poor weight gain and fatigue. Depending on other conditions that sometimes accompany tricuspid atresia, treatment usually requires two or three surgeries over the course of the first two years of the child's life.

Ventricular Septal Defect

A ventricular septal defect, or VSD, is characterized by one or more holes in the septum, which is the wall that separates the two ventricles of the heart. It is a common congenital heart defect that causes leaking between the ventricles, typically resulting in heart murmur, failure to thrive and sweating while feeding. If the VSD is small, it may close on its own without surgery. In fact, nearly 50 percent of VSDs close spontaneously within the first year. For those that do not, the hole can be corrected with a patch, a low-risk procedure with excellent long-term results.



Additional Conditions We Treat

- Aortic Valve Stenosis (AS)
- Aortic Valve Insufficiency or Regurgitation
- Atrial Septal Defect (ASD)
- Atrioventricular Septal Defect (or AV canal defect)
- Bicuspid Aortic Valve
- Coarctation of the Aorta
- Complete or Partial Atrioventricular Canal Defect
- Congenitally Corrected Transpositions
- Coronary Fistula
- Double Outlet Left Ventricle
- Double Outlet Right Ventricle
- Ebstein's Anomaly of the Tricuspid Value
- Heterotaxy
- Interrupted Aortic Arch
- Loey's Dietz Syndrome
- Marfan's Syndrome
- Mitral Valve Stenosis/Regurgitation
- Partial Anomalous Pulmonary Venous Return (PAPVR)
- Pulmonary Stenosis (PS)
- Shone's Syndrome
- Single Ventricle Anomalies
- Total Anomalous Pulmonary Venous Return (TAPVR)
- Transposition of the Great Arteries
- Truncus Arteriosus
- Vascular Rings



Specialized Treatment Options for Special Patients

At AdventHealth for Children, our cardiology program provides a varied and extensive range of specialized treatment options that include:

Cardiac Surgery

Our first objective at AdventHealth for Children is to correct pediatric heart conditions without surgery. Surgery is sometimes necessary, however, to achieve positive long-term outcomes. If your child needs heart surgery, you need peace of mind that they're in the most compassionate, capable hands. Our expert teams are trained in pediatric open-heart surgery and minimally invasive heart surgery. From initial diagnosis to post-operative care, we'll guide you and your child each step of the way.

Pre-natal Diagnostics

The ability to diagnose a heart problem before delivery allows your physician to help you make informed decisions about treatment. In some cases, it's even possible to treat the condition while your baby is still in the womb.

At AdventHealth for Children, our imaging team uses advanced diagnostic tools, including fetal echocardiography, to view the structure of the heart in detail using harmless sound waves.

Lifelong Care for Congenital Heart Disease

AdventHealth for Children's cardiology team is comprised of some of the finest pediatric heart care experts in the country. Our compassionate doctors, surgeons and specialists use the most advanced tools and treatments available to care for congenital heart patients of all ages. The convenience and confidence that comes with not having to switch specialists as a patient gets older, is just one more way our comprehensive pediatric/adult program makes a significant difference in our patients' lives.



Unparalleled Network of Care

AdventHealth for Children is an extensive pediatric care network that includes pediatricians, 250+ pediatric specialists practicing 35 pediatric specialties, regional specialty clinics, pediatric emergency departments and Centra Care Kids urgent care locations.

Across Central and West Florida, there are more than 300 dedicated pediatric beds, with 200 of them located at the flagship Walt Disney

Pavilion at AdventHealth for Children campus in Orlando. Dedicated pediatric ambulances and a helicopter provide emergency transfers and are staffed with a highly trained PICU and NICU transport team that supports regional and community hospitals.

And no matter which of our facilities you visit, you will receive the same special brand of care. We're here to heal - body, mind and spirit.



World-Class Cardiology Care Close to Home

AdventHealth for Children's specialty clinics offer busy parents convenient access to some of the nation's most experienced health care professionals. We bring our cardiology specialists to your neighborhoods frequently to provide the same award-winning care in a safe, comfortable environment, close to home.

Our cardiology team sees patients at the following locations.

Celebration

1530 Celebration Boulevard, Suite 408
Celebration, FL 34747

Daytona Beach

305 Memorial Parkway, Suite 408
Daytona Beach, FL 32117

Lake Mary

755 Reinhart Road, Suite 100
Lake Mary, FL 32746

Ocala

307 S.W. 14th Street, Suite B
Ocala, FL 34471

Orlando

2501 N. Orange Avenue, Suites 209 & 310
Orlando, FL 32804

Tampa

3100 East Fletcher Avenue, Suite 126
Tampa, FL 33613

Viera

6609 N. Wickham Road, Suite 109
Melbourne, FL 32940

Winter Garden

2200 Fowler Grove Boulevard, Suite 200
Winter Garden, FL 34787



We are here for your whole family.

If you have concerns about your child, give us a call. We can help you navigate normal childhood changes and catch issues early, so you can get the best treatment possible for your family.

This guide is provided to the general public to disseminate health-related information. The information is not intended to be used for diagnosing or prescribing. Please consult your physician before undertaking any form of medical treatment and/or adopting any exercise program or dietary guidelines.

AdventHealth complies with applicable federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability or sex.

ATENCIÓN: si habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al número siguiente.



We're here to talk.

Call us at **855-840-4460**.

[AdventHealthforChildren.com/Heart](https://www.adventhealthforchildren.com/Heart)

 [@AdventHealthforChildren](https://www.facebook.com/AdventHealthforChildren)

 [@AdventHealthWomenandChildren](https://www.instagram.com/AdventHealthWomenandChildren)

AdventHealth for Children

Children's Cardiology Program

Call **855-840-4460** to make your appointment.