

Congenital Heart Disease

Congenital heart disease affects an estimated 1 million people in America. Each year, approximately 1 in every 120 babies born in the US has a congenital heart defect. In some cases, the disease is life-threatening at birth. However, many people with a congenital heart condition do not know about it for years. Experts at Cleveland Clinic have extensive experience in the diagnosis and treatment of patients with all forms of congenital heart disease. The services of the Center for Pediatric and Adult Congenital Heart Disease are further enhanced by the Special Delivery Unit. The unit provides in utero diagnosis of complex heart conditions and immediate treatment after birth. Patients with more complex congenital heart disease who have surgery often require additional treatment or procedures throughout their lifetime and, therefore, need follow-up care from a team of experts in congenital heart disease. Cleveland Clinic Children's and Akron Children's Hospital have been collaborating since 2014 to provide the best care possible to patients with congenital heart disease.

Percutaneous Closure Procedures for Adult Congenital Heart Disease

Volume and Outcomes (N = 32)

2016

A total of 32 patients had percutaneous closure procedures at Cleveland Clinic in 2016. The success rate was 100%, and the mortality rate was 0% for both atrial septal defect and patent foramen ovale closures.

	N	Success	Mortality
Percutaneous ASD and PFO closures	32	100%	0%

ASD = atrial septal defect, PFO = patent foramen ovale

3-D Technology Advances Treatment for Complex Congenital Condition

The use of 3-D printing technology is enabling the advancement of care. One such case involves a 3-D printed model of a 9-year-old patient's heart. The patient was born with heterotaxy syndrome, which is a rare condition that causes compromised heart function and blood oxygen levels. Two prior surgeries did not result in adequate treatment. However, the 3-D model allowed the surgical team to fully develop a plan to divide the complex heart into 4 chambers. The surgery was a success and resulted in improved heart function and normal blood oxygenation.

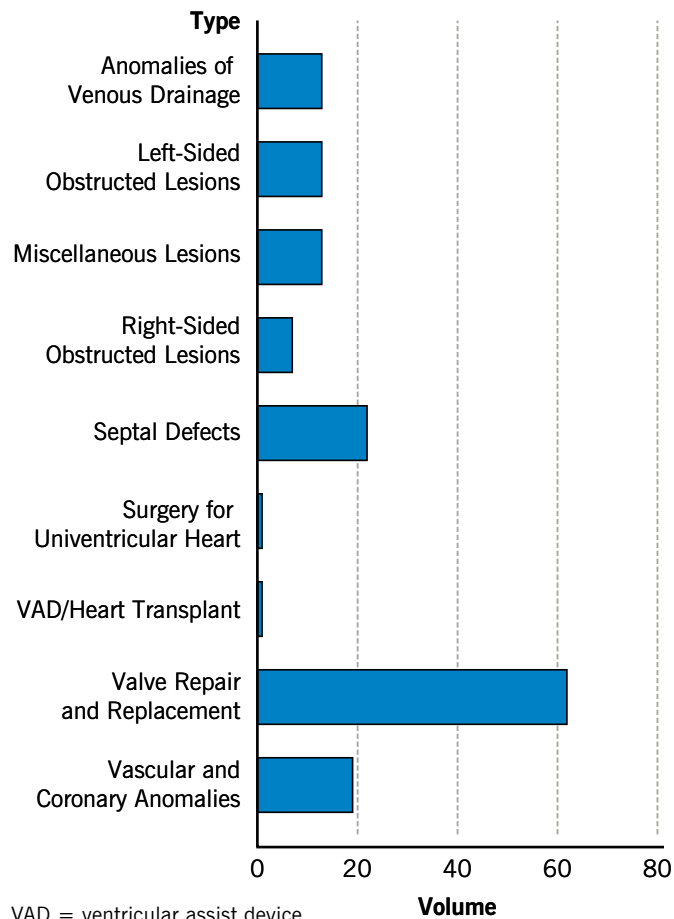


Adult Congenital Heart Surgery

Volume and Type (N = 151)

2016

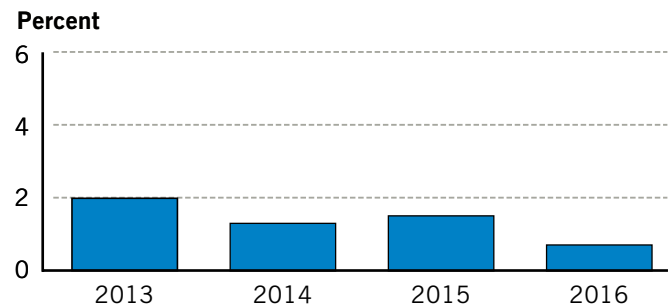
Cleveland Clinic cardiac surgeons performed 151 open heart surgeries on patients with congenital cardiac disease, excluding patients with bicuspid aortic valves and connective tissue disorders. With advances in medical care and better long-term survival of patients who had previous surgery as children, the volume of these adult patients is increasing.



In-Hospital Mortality (N = 151)

2013 – 2016

The in-hospital mortality rate for adult congenital heart surgery at Cleveland Clinic in 2016 was 0.7%. Many of these patients have very complex medical backgrounds and conditions and have had multiple surgeries.



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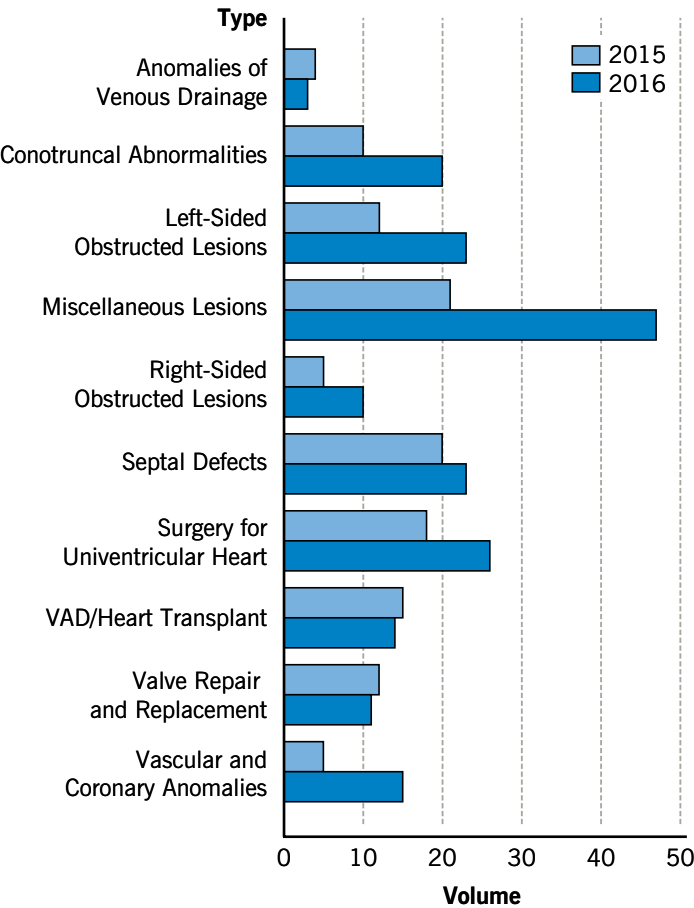
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Pediatric Congenital Heart Surgery

Volume and Type (N = 192)

2015 – 2016

Cleveland Clinic surgeons performed 192 pediatric congenital heart surgeries in 2016.

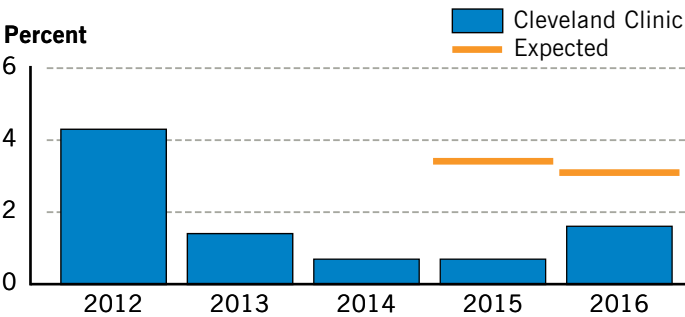


VAD = ventricular assist device

In-Hospital Mortality (N = 192)

2012 – 2016

Cleveland Clinic is committed to achieving the best possible outcomes for patients. The in-hospital mortality rate for pediatric congenital heart surgery patients in 2016 was well below the expected rate of 3.1%.



Source: Society of Thoracic Surgeons (STS) National Database 2016