

# Advanced Cardiac Imaging



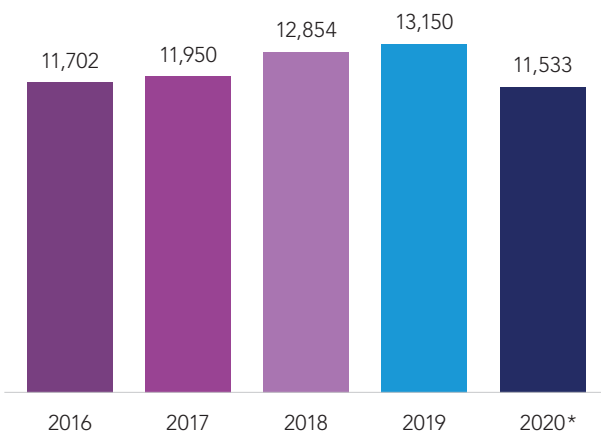
Children’s Minnesota is a leader in congenital heart disease imaging, offering advanced capabilities such as cardiac CT, cardiac MRI and echocardiography. We have national accreditation in pediatric transthoracic echocardiography from the Intersocietal Accreditation of Echocardiography Laboratories (ICAEL), and we’re accredited through the Intersocietal Accreditation Commission (IAC).

## Echocardiography

We have 15 dedicated, highly trained sonographers who are board-certified or board-eligible in pediatric cardiology. In addition to Children’s Minnesota, our team provides imaging and interpretation at nine surrounding hospitals. We offer echocardiography services in conjunction with cardiology consultations at every site so that patients can get complete care in a single visit.

Our imaging capabilities include:

- 3D echo
- Tissue Doppler imaging
- Fetal imaging
- Sedated imaging
- Strain imaging
- Stress echocardiography
- Transesophageal echocardiography (TEE)
- Transthoracic echocardiography (TTE)



## ECHOCARDIOGRAMS

\*COVID-19 state mandate-impacted case volumes.



## Cardiac CT and MRI

We perform a high volume of CT and MRI exams using the latest imaging technology — approximately 350+ scans annually.

### Cardiac CT

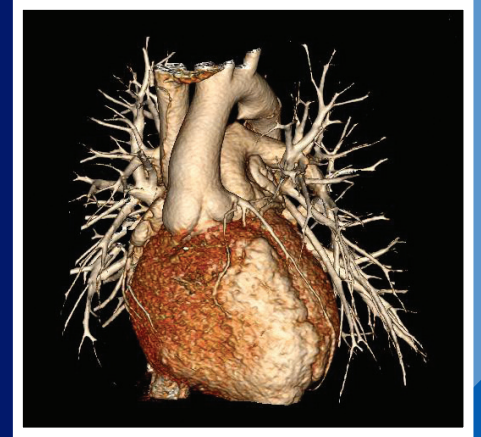
Scans are performed in a fraction of a second or a single breath hold, eliminating the need for sedation and anesthesia for our youngest patients. Each CT scan is tailored to the patient, using the lowest radiation dose to reduce their lifetime diagnostic risk.

### MRI technology

MRI scans provide our team with quantification of heart function, blood flow and myocardial tissue characterization. It's the primary modality used when an echocardiogram cannot provide the answers needed for clinical care.

In addition to clinical care, our team is actively involved in medical education, presenting at several national and international symposiums and providing cardiac CT courses throughout Minnesota in partnership with the Society of Cardiovascular Computed Tomography (SCCT). We participate in ongoing, grant-awarded research efforts to find better, safer imaging approaches and enhance care for our patients.

We are currently exploring the accuracy and cumulative risk of cardiac imaging in patients with congenital heart disease. Our imaging team is also investigating noninvasive approaches to evaluate single ventricle heart disease as an alternative to cardiac catheterization. Additionally, we're participating in the first international multimodality registry evaluating advanced cardiac imaging risk, with 15 centers enrolled.



In 2020, we performed:

**167**

CT scans

**203**

MRI exams