

Texas Children's **Fetal Center**®



More than 20 years ago, Texas Children's Hospital launched a program to address the needs of a fetus as it develops in the womb. Today, Texas Children's Fetal Center is a national leader in diagnosing and treating abnormalities in unborn and newborn infants — and one of only a few centers in the United States providing the full spectrum of fetal therapies. From diagnosis to treatment to delivery and beyond, we consistently provide the highest level of care and the best possible outcomes to families with complex pregnancies.

Dedicated support and a multidisciplinary team approach

Located within the renowned Texas Children's Pavilion for Women, our program follows the latest evidence-based clinical protocols established through decades of scientific study and application. The Fetal Center brings together a dedicated, multidisciplinary team to develop a unique, highly personalized care plan for every patient and family. We pair every family with a dedicated clinical nurse coordinator who is highly trained in the needs of patients with fetal anomalies. The coordinator is available to the family from the time of referral until delivery. This service provides families with a direct link for medical information, insight and assistance, and — equally important — a familiar face and source of support during treatment. As an additional resource, we have dedicated social workers available to meet with every family should they need one.

Our physicians are among the world's leaders in maternal, fetal, neonatal and pediatric care. Together, under one roof, these specialists work in harmony with care coordinators and a host of other experts to provide the best available treatment for fetal anomalies and conditions. This team meets regularly to discuss and plan care in detail for each fetal and maternal patient.



Our comprehensive care team includes expert physicians, surgeons, diagnosticians, genetic counselors, sonographers, researchers, nurse coordinators, nurse practitioners, social workers and others from Texas Children's Fetal Center and Baylor College of Medicine. Subspecialty services include:

- Anesthesiology (maternal-fetal)
- Cardiovascular Surgery
- Craniofacial Surgery (plastic and reconstructive)
- Fetal Cardiology/Echocardiology
- Fetal Imaging/Radiology
- Fetal Interventional Cardiology
- Fetal Intervention/Fetal Surgery
- Genetics
- Infectious Disease/Congenital Infections
- Interventional Neuroradiology
- Maternal-Fetal Medicine
- Medical Ethics
- Neonatology
- Nephrology
- Neurology
- Neurosurgery
- Obstetrics
- Orthopedics
- Pathology
- Perinatal Pediatric Advanced Care Team (Palliative care)
- Pediatric/Fetal Surgery
- Urology
- Women's Reproductive Psychiatry

Multi-disciplinary programs include:

- Colorectal program
- Congenital diaphragmatic program
- Spina bifida program
- Vascular malformation clinic

Texas Children's Heart Center include:

- Cardiovascular Genetics Program
- Fontan Go! Program
- Single Ventricle Program

Conditions we treat

Our Fetal Center experts evaluate and treat many conditions, including:

- Abdominal wall defects, including gastroschisis and omphalocele
- Amniotic band syndrome
- Bowel obstruction
- Cardiac masses
- Central nervous system lesions, including anencephaly, encephalocele, holoprosencephaly, hydranencephaly and hydrocephalus
- Complications in monochorionic twin pregnancies, including conjoined twins, selective intrauterine growth restriction (IUGR), discordant structural anomalies, twin reversed arterial perfusion (TRAP sequence or acardiac twin), twin-to-twin transfusion syndrome (TTTS) and twin anemia polycytemia sequence (TAPS)
- Congenital diaphragmatic hernia
- Congenital heart disease, including heterotaxy, hypoplastic left heart syndrome, tetralogy of Fallot, atrioventricular septal defects and all other simple and complex anomalies
- Congenital high airway obstruction syndrome (CHAOS)
- Chorioangioma
- Craniofacial anomalies (cleft lip and palate)
- Duodenal and intestinal atresia
- Esophageal atresia with or without tracheoesophageal fistula
- Fetal arrhythmias, including congenital heart block, supraventricular tachycardia, atrial flutter and all others
- Fetal chylothorax and hydrothorax
- Lung lesions
- Maternal immune disorders affecting the fetus (congenital heart block, platelet alloimmunization and red cell alloimmunization)
- Neck masses including teratomas and lymphangiomas
- Neural tube defects
- Non-immune hydrops
- Pericardial effusions
- Sacrococcygeal teratoma
- Skeletal dysplasia
- Urinary tract obstructions, including lower urinary tract obstructions (LUTO), bladder outlet obstruction and hydronephrosis



Services we provide

Advanced diagnostic imaging and specialty consultation

The Fetal Center offers state-of-the-art examinations with comprehensive multidisciplinary subspecialists available for collaboration. We perform detailed anatomical examinations in first and second trimester pregnancies, including fetal echocardiography performed by pediatric cardiologists, fetal neurosonologies and anatomic surveys with 3D and 4D ultrasound technologies. We use state-of-the-art imaging techniques to perform high-definition imaging, applying our wide expertise on fetal anomalies.

These advanced tests allow our multidisciplinary team to make a diagnosis and create a treatment plan that best suits each family. After diagnosis, we provide multispecialty consultations and antenatal testing for optimizing fetal health, delivery and neonatal care planning. Pregnancies with severe anomalies — such as hypoplastic left heart syndrome, congenital diaphragmatic hernia or spina bifida — may be good candidates for our Fetal Intervention Program.

Genetic counseling

Expert prenatal genetic counselors at the Fetal Center provide education and support to families regarding genetic contributions to birth defects and other fetal conditions. We work with families to:

- Help them understand the potential cause(s) of fetal conditions
- Make recommendations for further genetic testing and explain the meaning of results on their family's care
- Offer modern and comprehensive methods for genetic diagnosis such as chromosomal microarray analysis and prenatal exome sequencing
- Explain the purpose and meaning of results from complex genetic testing
- Support their emotional needs and connect them to advocacy and support groups

Prenatal diagnostic testing

The Fetal Center performs standard and advanced diagnostic procedures for genetic and other testing, including:

- Amniocentesis
- Chorionic vesicocentesis sampling
- Fetal cord blood sampling (cordocentesis)
- Fetal skin and muscle biopsy
- Thoracocentesis
- Vesicocentesis

Fetal therapies

We are known for leading the development and implementation of innovative fetal procedures and therapies, bringing families new options and new hope for the treatment of fetal anomalies. Our fetal therapies include:

- Catheter-based fetal cardiac intervention, including atrial septal stenting in hypoplastic left heart syndrome with restrictive or intact atrial septum and pulmonary valvuloplasty
- Ex-utero intrapartum treatment (EXIT), including EXIT to airway, EXIT to ECMO and EXIT to resection
- Fetal shunt placement for effusions and lower urinary tract obstructions (LUTO)
- Fetoscopic amniotic band resection
- Fetoscopic complex gastroschisis repair
- Fetoscopic laser photocoagulation for twin-twin transfusion syndrome (TTTS), selective intrauterine growth restriction, twin anemia polycythemia sequence (TAPS) and cord occlusions for twin reversed arterial perfusion (TRAP) sequence
- Intrauterine transfusion for fetal anemia
- Minimally invasive in utero treatment for Congenital High Airway Obstruction Syndrome (CHAOS)
- Minimally invasive treatment of placental chorioangiomas
- Open and fetoscopic surgery for neural tube defects
- Open and minimally invasive fetal surgery for lung lesions
- Open and minimally invasive fetal surgery for sacrococcygeal teratoma (SCT)
- Treatment of fetal arrhythmias

Clinical Trials

For more than a decade, Texas Children's Fetal Center and Baylor College of Medicine have partnered to help lead the way in scientific discovery, conducting clinical trials that improve our understanding of women's and fetal health. Our current clinical trials include:

- Fetoscopic Endotracheal Occlusion (FETO) for congenital diaphragmatic hernia
- Fetal Surgery for complex gastroschisis



Referring a patient

Referring physicians can be confident that patients referred to Texas Children's Fetal Center[®] will receive the best possible fetal evaluation and treatment and that they and their families will be treated with the utmost care and compassion. We have physicians on call 24/7 to discuss diagnoses or care plans with referring doctors, and we are staffed and supported for surgical or medical intervention seven days a week, year-round — with access to our level IV NICU at all times. We welcome an opportunity to provide an expert second opinion to help you and your patient make the most informed decisions. Please contact us to refer a patient to Texas Children's Fetal Center for consultation for a fetal anomaly, fetal intervention and fetal surgery.



Online: Scan the QR code to access our referral form. Please complete it to the best of your ability and upload relevant patient historical information and medical records. **texaschildrens.org/FetalRefer**



By phone: We answer calls 24/7 to assist you with everything from online form submission to any urgent matter concerning your patient. Please call us toll-free at **832-822-BABY (2229)** | **1-877-FetalRx (338-2579)**.



By email: Feel free to email us with non-urgent questions at fetalcenter@texaschildrens.org.



Additional information: Scan the QR code to learn more about our volumes and outcomes. texaschildrens.org/FCvolumes



