



Fetal Center

Discover unparalleled care for both mother and baby at the Fetal Center at Riley Children's Health, where advanced treatments combined with compassionate support ensure the best outcomes for complex pregnancies.



Riley Children's Health
Indiana University Health

rileychildrens.org/fetalcenter

Meet the team

Leadership



Melinda Markham, MD
Fetal Center
Medical Director
Neonatal-Perinatal Medicine



Jennifer Weida, MD
Fetal Center
Associate Medical Director
Maternal Fetal Medicine,
Medical & Molecular Genetics



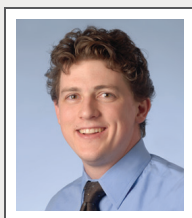
Hiba Mustafa, MD
Fetal Surgery Director,
Placenta Accreta Spectrum
Program Director
Maternal Fetal Medicine



Jason Chu, MD, MSc
Fetal Neurosurgeon
Pediatric Neurosurgery



Brian Gray, MD
ECMO Director
Pediatric Surgery



Brandon Brown, MD
Fetal and Perinatal
Imaging Director
Radiology



Ranked among the nation's best children's hospitals by *U.S. News & World Report*, Riley Children's Health provides specialized care for patients with complex fetal diagnoses. Our team members represent the full spectrum of pediatric medical and surgical sub-specialties necessary for comprehensive care, including:



- Fetal Intervention and Surgery
- Fetal Cardiology
- Fetal Radiology
- Fetal Neurosurgery
- Genetics
- Interventional Cardiology
- Infectious Disease
- Interventional Radiology
- Maternal Fetal Medicine
- Maternal Fetal Anesthesiology
- Neonatology
- Obstetrics
- Pediatric Orthopedics
- Pediatric Cardio-Thoracic Surgery
- Pediatric Surgery
- Pediatric Neurology
- Pediatric Neurosurgery
- Pediatric Urology
- Pediatric Nephrology
- Pediatric Ear, Nose & Throat
- Plastic, Craniofacial and Reconstructive Surgery
- Perinatal Pathology
- Perinatal Psychiatry

We also offer multidisciplinary programs and services, including:

- Disorders of Sexual Development Program
- Down Syndrome Program
- Fetal Cardiology Program
- Riley Heart Center
- Newborn Follow-up Program
- NICU Nest Family Support Program
- Perinatal Advanced Care Planning Program (Palliative Care)
- Placenta Accreta Spectrum Program
- Perinatal Outreach Simulation Program
- Pulmonary Hypertension Program
- Prenatal Diagnosis Program
- Perinatal Genomic Program
- Spina Bifida Program
- Vascular Anomalies Program



Learn more about the Fetal Center
by scanning the QR code.

About the Fetal Center

The Fetal Center at Riley Children's Health offers comprehensive, coordinated care for expectant families through a multidisciplinary approach. Referring providers can rely on advanced imaging services, including MRI, fetal echocardiography and detailed fetal anatomic ultrasound, all coordinated within Riley Outpatient Center on the same day. Families receive a dedicated counseling session with Maternal Fetal Medicine, Neonatology and any necessary pediatric subspecialists to discuss the baby's anomaly and develop a tailored treatment plan that spans the pregnancy, delivery and post-birth care. In addition to medical support, the Fetal Center prioritizes the well-being of the family. A registered nurse fetal care coordinator offers ongoing assistance to families and referring provider offices throughout the pregnancy. A family support coordinator is also available to provide tours and address non-medical and financial needs, ensuring families receive the comprehensive care and support they deserve.

Facilities for both mom and baby

Riley Outpatient Center

Riley Outpatient Center is home to the Fetal Center and offers immediate access to Riley Maternity Tower (Labor and Delivery) and Simon Family Tower (Inpatient Unit).

Riley Maternity Tower

Riley Maternity Tower is a Level IV maternity care unit that keeps both mother and newborn together under one roof. In addition to Labor and Delivery services, Riley Maternity Tower includes an Obstetric Critical Care Unit, staffed 24/7 by adult critical care physicians, and private postpartum suites. There is also a 45-bed Level III NICU.

Simon Family Tower

Simon Family Tower offers comprehensive care with access to a 60-bed Level IV NICU and various pediatric surgical specialties to address complex conditions.

Ronald McDonald House Charities of Central Indiana

Located inside Riley Hospital for Children, Ronald McDonald House Charities of Central Indiana provides a supportive home away from home for families receiving medical care. The house features 46 guest rooms and six continuing care apartments designed for the special needs of patients and their families.



Conditions treated

Our multidisciplinary team evaluates and manages multiple conditions, including:

- Amniotic band syndrome
- Abdominal wall defects such as bladder exstrophy, body-stalk anomaly, cloacal exstrophy, gastroschisis and omphalocele
- Complicated monochorionic twins, including twin-to-twin transfusion syndrome, twin-anemia polycythemia sequence, selective fetal growth restriction, twin reversed arterial perfusion sequence and conjoined twins
- Congenital diaphragmatic hernia
- Neural tube defects
- Abdominal solid and cystic lesions
- Sacrococcygeal teratoma
- Lower urinary tract obstruction such as posterior urethral valve
- Fetal anemia, thrombocytopenia and hemoglobinopathy
- Fetal pleural effusion
- Fetal congenital high airway obstruction
- Fetal arrhythmia such as congenital heart block and tachyarrhythmia
- Central nervous system anomalies such as neural tube defects, anencephaly, Dandy-Walker malformation, encephalocele, holoprosencephaly, hydranencephaly, hydrocephalus, intracranial hemorrhage, cortical malformation and vein of Galen aneurysm
- Craniofacial such as cleft lip and cleft palate
- Cardiovascular anomalies such as septal defects, cardiomyopathy, double inlet left ventricle, double outlet right ventricle, Ebstein anomaly and tricuspid valve disease, pentalogy of Cantrell, tetralogy of Fallot, total anomalous pulmonary venous return, transposition of great arteries and truncus arteriosus
- Chest masses such as bronchopulmonary sequestrations and congenital pulmonary airway malformation
- Esophageal atresia and tracheoesophageal fistula
- Skeletal dysplasia
- Fetal hematology disorders including fetal anemia (red blood cell alloimmunization), fetal and neonatal alloimmune thrombocytopenia
- Fetal hydrops
- Fetal infection such as cytomegalovirus and parvovirus
- Neck masses such as teratoma and lymphangiomas
- Placenta abnormalities such as vasa previa, fetal growth restriction, placenta previa, placental chorangiomas and placenta accreta spectrum
- Fetal chromosomal abnormalities

The Fetal Center delivers exceptional outcomes through highly coordinated, specialized care. When Owen was born with a large tumor on his neck that obstructed his airway, a team of specialists worked together to carefully plan his delivery. Using EXIT delivery, they ensured his upper body was delivered while still monitoring his oxygen and heart levels. During this critical time, Ear, Nose & Throat specialists successfully intubated him, securing his airway after 19 minutes. This collaborative approach, combining expertise from Maternal Fetal Medicine, Ear, Nose & Throat and other specialties, ensured Owen's safe delivery and care.



Services offered

Advanced imaging

Our center utilizes advanced imaging techniques, including:

- Comprehensive ultrasound
- First trimester ultrasound including first trimester echocardiography
- Fetal neurosonography
- 3-D and 4-D ultrasound
- Fetal echocardiography
- Fetal MRI

Genetic counseling

Our genetic counselors provide a range of services to help individuals and families understand and manage genetic conditions. These services include:

- Risk assessment
- Genetic testing
- Education and counseling
- Support and guidance
- Referral services

Prenatal invasive diagnostics

The Fetal Center performs standard and advanced diagnostic procedures, including:

- Chorionic villus sampling
- Amniocentesis
- Fetoscopy
- Fetal blood sampling fetal tissue biopsy
- Thoracocentesis
- Vesicocentesis

Multidisciplinary care

We coordinate care with specialists in Maternal Fetal Medicine, Neonatology, Pediatric Surgery, Cardiology and other fields to provide holistic treatment plans. This collaborative approach ensures that all aspects of the mother's and baby's health are addressed, from prenatal care through delivery and postnatal follow-up.

Fetal intervention and surgery

Our highly skilled fetal surgeons offer a full spectrum of standard care procedures as well as innovative approaches and therapies to improve neonatal survival and reduce morbidity. These include:

- 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 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 treatment of placental chorioangiomas
- Fetoscopic surgery for neural tube defects
- Minimally invasive fetal surgery for lung lesions
- Minimally invasive fetal surgery for sacrococcygeal teratoma (SCT)
- Treatment of fetal arrhythmias

If referred for fetal surgery, the patient will be seen urgently and will have a care plan in place at the end of the evaluation. A Fetal Center provider will follow up with you directly to keep you informed.





Refer a patient

The Fetal Center is committed to working closely with referring providers to deliver the highest quality of care for the youngest and most vulnerable patients—from newborns to adolescents. Referrals can be made through multiple convenient channels.

- Visit rileychildrens.org/refer or scan the QR code to access our online referral form.
- Call **317.948.5077** or fax a referral to **317.968.1028**.
- For emergent referrals that are needed after-hours, on a weekend or holiday, contact the Transfer Center at **877.247.1177**.
- For questions contact our team at fetalcare@iuhealth.org.



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