

Volumes & Outcomes Summary 2023

The Fetal Care Center is one of few comprehensive fetal care centers in the world. Led by physicians from **Cincinnati Children's, TriHealth and University of Cincinnati Medical Center**, our team specializes in treating complex and rare fetal conditions and is at the forefront of innovation in fetal diagnosis and intervention therapies. Our experience and expertise is shown in our volume and outcomes.

Information in this document is based on data from fetal patients cared for by Cincinnati Children's Fetal Care Center from February 1, 2004 through June 30, 2023, except where otherwise noted.

Care for the Full Spectrum of Fetal Conditions

Total Evaluations	8,728
Twin-Twin Transfusion Syndrome (TTTS)	2,386
Bladder Outlet Obstruction (BOO)/Posterior Urethral Valves (PUV)	614
Myelomeningocele (MMC)/Spina Bifida	514
Congenital Diaphragmatic Hernia (CDH)	445
Congenital Pulmonary Airway Malformation (CPAM/CCAM) and Bronchopulmonary Sequestration (BPS)	418
Fetal Tumors	157
Twin Reversed Arterial Perfusion (TRAP) Sequence	144
Amniotic Band Syndrome (ABS)	90
Chorioangioma	33
Other	3,927



See the comprehensive list of fetal conditions we treat **HERE**.

Experience When Needed Most

In addition to amnioinfusions, amnioreductions, intrauterine transfusions, amniocentesis, and shunts; we have also performed the following procedures.

Total Procedures	2,042
Surgical Procedures	
Fetoscopic	1,764
Open Fetal Surgeries (excluding EXIT)	83
Delivery Interventions	
Cesarean with ECMO standby	87
Ex-utero Intrapartum Treatment (EXIT)	75
Delivery with Procedures on Placental Support (POPS)	36
Special Delivery Unit (SDU) Deliveries	551

Our team has performed more fetoscopic procedures than most other programs in the nation.

Congenital Diaphragmatic Hernia (CDH)

All patients with CDH are cared for by our dedicated CDH team of maternal-fetal medicine specialists, neonatologists, pediatric surgeons, pediatric cardiologists, ECMO specialists, nurses, nutritionists and therapists. After birth, these patients can continue their care in our CDH Program.

Total Evaluations **445**

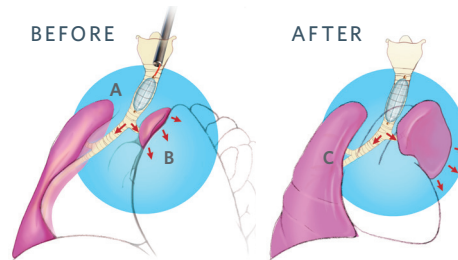
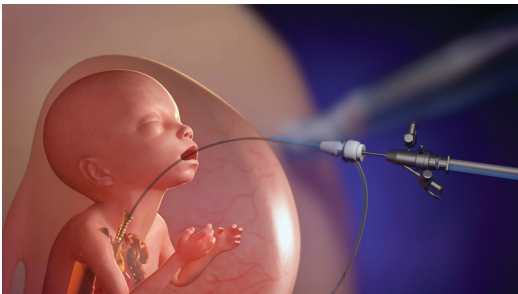
Our surgeons have performed more than 50 FETO procedures.

Patients with severe CDH receiving FETO had lower rates of ECMO use, shorter days on mechanical ventilation, and shorter length of stay in the NICU.

Our Medical Center is the first of a few centers in the nation to offer the Carpediem™ Machine—a breakthrough technology providing dialysis for newborns in our NICU.

Fetoscopic Endoluminal Tracheal Occlusion (FETO)

We provide FETO intervention for Left and Right sided CDH based on criteria and patient evaluation.



The fetoscope instrument is guided through a small incision in the mother's uterus and into the fetal trachea.

- A. Balloon inflated inside baby's trachea
- B. Pressure helps lungs to grow
- C. Balloon traps fluid inside lung and pressure helps lungs to grow



Watch our FETO surgical animation video [HERE](#).

Bladder Outlet Obstruction (BOO)/Posterior Urethral Valves (PUV)

Total Evaluations **614**

Fetoscopic Interventions **27**

Serial amnio-infusions for in-utero kidney failure **137***

Amnioport **37**

Percutaneous needle **100**

Our team has also performed several hundreds of the following procedures:

- Vesicoamniotic shunting
- Bladder taps
- Peritoneal-amniotic shunting for urinary ascites



Watch our BOO surgical animation video [HERE](#).

*Data includes amnioports for serial amnio-infusions for in-utero kidney failure due to BOO and other kidney disorders from January 1, 2011 – June 30, 2023.

Twin-Twin Transfusion Syndrome (TTTS)

Total Evaluations	2,386
Twins	2,281
Triplets	105
Fetoscopic Interventions	1,489



Watch our TTTS surgical animation video [HERE](#).

Fetoscopic Laser Photocoagulation (FLP) Procedures

Total FLP Procedures Performed	1,400
---------------------------------------------	--------------

Placenta Position

Posterior Placenta	51%
Anterior Placenta	49%

Gestational Age at Procedure

16-18 Weeks	14%
18-24 Weeks	71%
24-28 Weeks	15%

Our center has performed more Fetoscopic Laser Photocoagulation (FLP) procedures for TTTS than most other centers in the nation with a 92% survival rate of at least one twin.*

**All patients (Stage I – IV) including selective fetal growth restriction, hydrop fetalis, and patients with short cervix.*

Survival Rates for Patients Undergoing FLP Procedures

Quintero Stages I, II, III

All patients including placental insufficiency/growth restriction and patients with short cervix.

	Cumulative Total <i>Twin gestations from July 1, 2011 to June 30, 2023</i>	Academic Year 2023 <i>Twin gestations from July 1, 2022 to June 30, 2023</i>
Survival of at Least One Twin	92%	96%
Survival of Both Twins	73%	82%
Overall Survival	83%	89%

Quintero Stage IV

All patients including placental insufficiency/growth restriction and patients with short cervix.

	Cumulative Total <i>Twin gestations from July 1, 2011 to June 30, 2023</i>	Academic Year 2023 <i>Twin gestations from July 1, 2022 to June 30, 2023</i>
Survival of at Least One Twin	86%	100%
Survival of Both Twins	70%	100%
Overall Survival	78%	100%

** All patients (Stage I – IV) including selective fetal growth restriction, hydrop fetalis, and patients with short cervix. Data reflects twin gestations from July 1, 2011 to June 30, 2023 except where otherwise noted.*

Myelomeningocele (MMC)/Spina Bifida

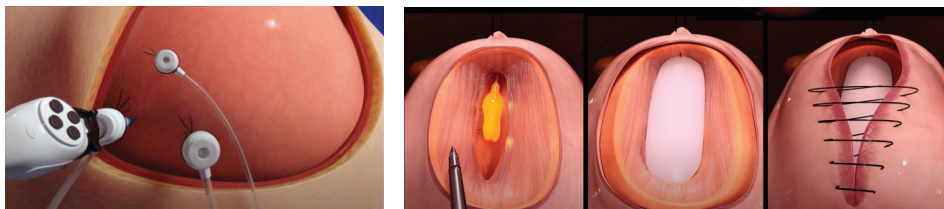
Total Evaluations	514
Prenatal MMC Repairs	140
Open Repairs	58
Fetoscopic Repairs*	82

44%* of patients receiving fetoscopic repairs delivered vaginally.

* Data reflects repairs starting in 2016.

We are one of the largest centers in the nation for MMC evaluations and procedures performed.

Fetoscopic Myelomeningocele (MMC)/Spina Bifida Repair



Watch our fetoscopic repair surgical animation video [HERE](#).

Fetoscopic repair uses three small ports inserted into the mother's womb. The ports allow for placement of instruments for the repair. The exposed nerves and neural placode are carefully released from their attachment and are then protected and covered with a double layer of neural-substitute patch. Skin defect is then sutured closed if possible. Otherwise, a skin-substitute patch will be used to cover the skin defect.

Congenital Pulmonary Airway Malformation (CPAM/CCAM) and Bronchopulmonary Sequestration (BPS)

Total Evaluations	418
Procedures by Type	
Open Fetal Surgery	7
EXIT-to-Resection	12
Shunt Placement	41

Fetal patients diagnosed with low risk CPAM and treated at our center have a 100% survival rate.

Twin Reversed Arterial Perfusion (TRAP) Sequence

Total Evaluations	144
-------------------------	-----

Fetal patients diagnosed with TRAP Sequence and treated at our center have a 98% survival rate.

Contact Us:

- 1-888-FETAL59
- Fetal Nurse On Call 513-260-4660
- 513-636-5959
- cfreferral@cchmc.org
- cincinnatichildrens.org/fetal



Cincinnati Children's is ranked #1 in the Midwest and #1 in the nation among Honor Roll hospitals.