

Outcomes Data: Open Fetal Surgery for Spina Bifida (Myelomeningocele) Repair

First in Texas

Physicians affiliated with The Fetal Center¹ at Children’s Memorial Hermann Hospital were the first in Texas to perform open fetal surgery for the repair of myelomeningocele, the most severe form of spina bifida, in May 2011. This procedure followed the published results from the 7-year multicenter clinical trial, the Management of Myelomeningocele Study (MOMS), in March 2011. Overall, The Fetal Center’s outcomes data is better than, or mirrors those reported in the MOMS trial, and the percentage of patients at The Fetal Center who delivered past 37 weeks is almost double that of the MOMS trial.

Below is an overview of The Fetal Center’s clinical outcomes data for the fetal surgical repair of spina bifida. The data is compared to the MOMS trial results, which included 183 surgically eligible randomized patients—80 patients underwent postnatal surgical repair and 78 underwent fetal surgery for spina bifida repair.

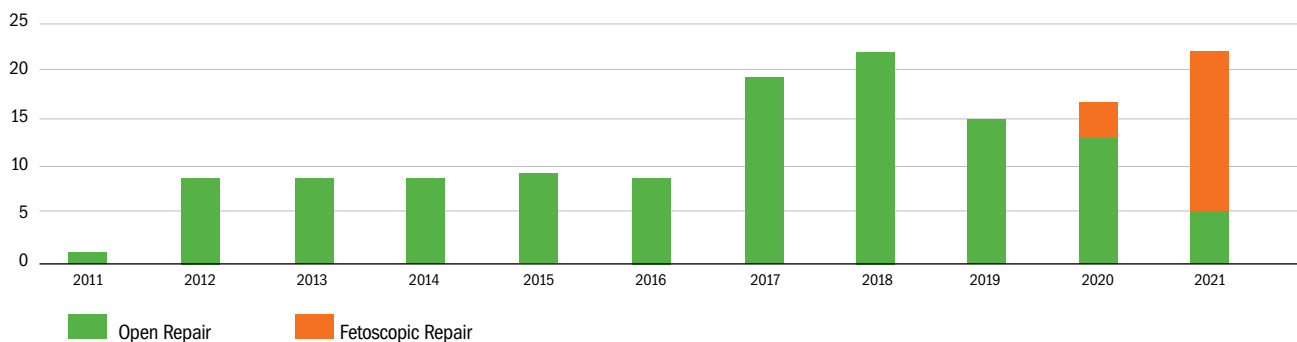
We strive to be transparent and provide up-to-date information on our patient outcomes. Our hope is that the data below serves as a helpful resource when making informed decisions regarding care.

For more information, visit memorialhermann.org/fetal.

Overview

Since The Fetal Center’s opening in 2011, the program has grown in a number of ways. As a national referral program, The Fetal Center currently receives patient referrals from 38 states and continues to serve as a leader in fetal diagnosis, fetal intervention and comprehensive fetal care for unborn babies with abnormalities. The data below includes the number of fetal surgeries performed year-over-year (YOY) since The Fetal Center’s opening.

Number of Fetal Spina Bifida Surgeries per Year



(The Fetal Center) Date range: May 2011 – November 2021. *Fetoscopic repair outcome data is ongoing and is excluded from further data analysis.

(over)

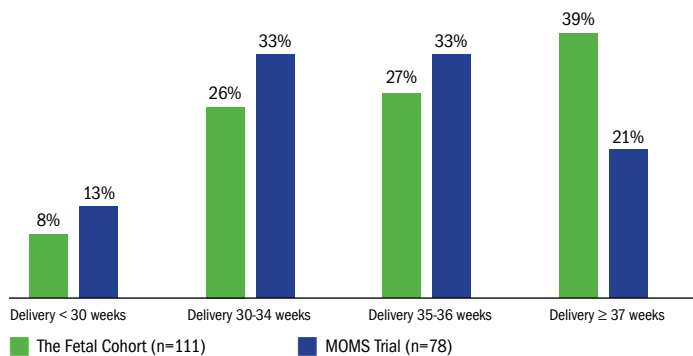
Since 2011, The Fetal Center has evaluated more than 315 patients for fetal spina bifida repair: 152 patients met criteria for fetal surgery; 111 patients elected to undergo open fetal surgical repair; and 18 patients have elected to undergo fetoscopic surgical repair with a human umbilical cord as a meningeal patch. The data below is an overview of The Fetal Center’s clinical outcomes data for open fetal surgical repair from May 2011 – November 24, 2021.

Fetal Surgery for Spina Bifida Repair – Summary			
	The Fetal Center Cohort (n=111)	MOMS Trial – Fetal Surgery (n=78)	MOMS Trial – Postnatal Surgery (n=80)
Gestational Age at Surgery	25.1 ± 0.5	23.6 ± 1.4	n/a
Gestational Age at Delivery	34.9 ± 3.2 (n=108)	34.1 ± 3.1	37.3 ± 1.1
Perinatal/Neonatal Demise	3 (3%)	2 (3%)	2 (2%)
VP Shunt at 1 Year	16/40 (40%)*	31 (40%)	66 (82%)

(The Fetal Center) Date range: May 2011 – November 24, 2021; N = 111 patients. *Patients who underwent fetal intervention by our site and remained under our care locally.

Gestational Age at Delivery

Patients who undergo open fetal surgery for spina bifida repair are asked to remain in Houston for the first 2 weeks following surgery. In the majority of cases, they return to their homes and are then co-managed with their referring maternal-fetal medicine specialists with scheduled C-section deliveries at 37 weeks. Overall, 39 percent of our patients delivered past 37 weeks’ gestation as compared to 21 percent in the MOMS trial. At The Fetal Center, the mean gestational age at delivery is 35 weeks and the median is 36.3 weeks.



(The Fetal Center) Date range: May 2011 – November 24, 2021; N = 111 patients.

We encourage you to reach out to other centers to request and review their outcomes data in order to utilize the information available when choosing your health care options.

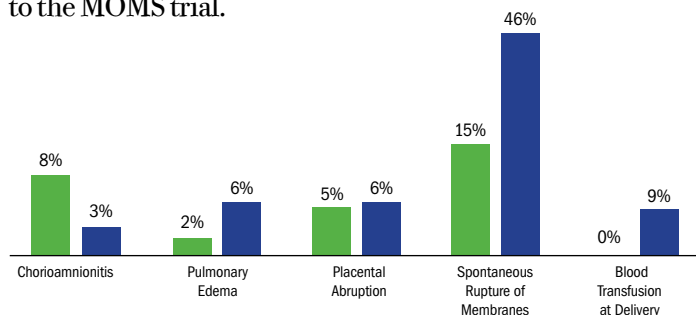
For more information about our data, call 832.325.7288.

¹ Located within the Texas Medical Center, The Fetal Center is affiliated with McGovern Medical School at UTHouston, UT Physicians and Children’s Memorial Hermann Hospital.



Maternal Complications

The affiliated team makes significant efforts to eliminate or minimize any potential maternal complications related to fetal surgery. For most of the conditions considered below, The Fetal Center had a lower complication rate as compared to the MOMS trial.



(The Fetal Center) Date range: May 2011 – November 10, 2020; N = 105 patients.

Ventriculoperitoneal (VP) Shunt Rate

The MOMS trial showed increasing benefits to the baby, including a reduction in the need for shunts. Overall, The Fetal Center’s cohort data closely mirrored the VP shunt rate of the MOMS trial.

VP Shunt Rate		
	The Fetal Center Cohort	MOMS Trial
VP Shunt at 1 Year	16/40 (40%)*	31/78 (40%)

(The Fetal Center) Date range: May 2011 – November 24, 2021; N = 111 patients.

*Patients who underwent fetal intervention by our site and remained under our care locally.

