

Comparing Outcomes of the Baby in the MOM Study

The Management of Myelomeningocele Study (MOMS) compared spinal defects in fetuses (unborn babies) using **prenatal** (before birth) surgical repair and **postnatal** (after birth) surgical repair. This study was published in the New England Journal of Medicine in 2011.

Below are the results of MOMS. The table compares the percentage of babies who were born with certain spinal defects based on the type of surgery they had:

	Prenatal surgical repair	Postnatal surgical repair
Average birthweight	5 pounds, 4 ounces (2383 grams)	6 pounds, 11 ounces (3039 grams)
Need for shunt placement at less than 12 months	40%	82%
Brainstem kinking	20%	48%
Hindbrain herniation resolved at delivery	36%	4%
Surgery for tethered cord	8%	1%
Difference between motor function and anatomic level	32%	12%
Walking independently at 30 months of age	42%	21%

The study did not address bowel or bladder function but a recent study (Brock, 2019) suggests:

- 24% (24 out of 100) babies who have prenatal surgery will be able to urinate by themselves at age 5.
- 4% (4 out of 100) of babies who have postnatal surgery will be able to urinate by themselves at age 5.
- Whether this will be long term is uncertain.

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