

Gastroschisis



What is Gastroschisis?

Gastroschisis is a birth defect in which the baby's intestines (bowels) stick out through a hole that is nearly always to the right side of the belly button. The opening allows the baby's intestines to poke through to the outside of the baby's body and float freely unprotected in the amniotic fluid. Sometimes the bladder or the ovaries in girls and testes in boys will also be found outside of the opening (Image from Centers for Disease Control and Prevention)

How will Gastroschisis Affect My Baby?

Direct contact of the baby's bowels with the amniotic fluid that surrounds the baby can cause the baby's bowels to become irritated and function poorly. The bowel may become damaged or fail to develop normally in some areas (atresia). Very damaged bowel may need to be removed, and there may be too little normal bowel left to take in enough nutrients from food (short bowel syndrome). Some babies will not have enough bowel left to survive, or will die from infection after delivery. Up to 20% of babies may be expected to have some damage to their bowel at birth. However, most children with repaired gastroschisis are able to live active and productive lives. The overall survival rate is about 90%.

What Causes Gastroschisis ?

We do not know what causes gastroschisis, but gastroschisis is seen more often in the babies of mothers who are less than 25 years old. There also seems to be an increased chance for having a baby with gastroschisis if the mother is underweight, she has had another pregnancy within the last 12 months, she has had genitourinary tract infection in early pregnancy, or the pregnancy is with a new father.

Gastroschisis has also been linked to a wide variety of exposures including use of methamphetamine (and other similar drugs) ibuprofen, decongestants, cigarette smoking, alcohol consumption, exposure to certain weed killers, X rays, and air pollutants

Gastroschisis occurs in about 1 in every 2,000 births, and for unclear reasons has been occurring more often over the last few years. The risk of recurrence amongst siblings is 3.5%. Most cases of gastroschisis occur unpredictably, and gastroschisis likely results from an interaction of many factors.

Evaluation

Gastroschisis can be seen during an ultrasound examination. About 1 in 10 babies with gastroschisis may also have a heart abnormality or other birth defect. Additional findings in some babies may go undetected until after delivery. If your baby has gastroschisis and another finding is seen that suggests the baby may have a chromosomal abnormality, a test called an amniocentesis may be offered to you to count and examine the chromosomes of the baby. Amniocentesis is a test in which a fine needle is inserted into the uterus (womb), and a sample of the amniotic fluid that surrounds the baby is removed to obtain the baby's cells that are present in the amniotic fluid.

Effect on Pregnancy

- Gastroschisis usually causes the maternal serum alpha-fetoprotein (MSAFP) screening test to be positive for a possible neural tube defect (a defect in the baby's spine or skull).
- Babies with gastroschisis are likely to grow more slowly than other babies while in the womb.
- Babies with gastroschisis are more likely to be born prematurely.
- Babies with gastroschisis are more likely to have low amniotic fluid.
- Babies with gastroschisis are more likely to be stillborn (to die in the womb).

Management

- It is often helpful to meet with the pediatric surgeon who can discuss details of any operations and what you might expect for your baby.
- Your baby will be measured using an ultrasound machine every 3 to 4 weeks to make sure it is growing well.
 - During the ultrasound examination your doctor may also look for abnormalities in blood flow through the umbilical cord, increased size or activity of the bowel, or a change in the amount of amniotic fluid that might indicate your baby should be seen more frequently.
- Your baby's heart rate and movement will be monitored two times per week or more using an electronic monitor starting at 28 to 32 weeks. This test is called the Non Stress Test (NST). The fluid around the baby is measured at the same time of the nonstress test.

Delivery

Your baby should be delivered at a hospital with pediatric surgery services and a neonatal intensive care unit available. A neonatal intensive care unit, or NICU, is an area of a hospital dedicated to treating and monitoring babies who are seriously ill. Infants with gastroschisis appear to be safely delivered vaginally, and delivery by cesarean section has not been shown to consistently improve the outcome of infants with gastroschisis. There is no generally agreed upon way to manage gastroschisis. The timing of delivery is usually based on several factors including the age of the baby, growth of the baby, the amniotic fluid level, fetal testing results, and the appearance of the bowel.

After Delivery

At delivery the bowel is protected with moist sterile dressings, and the baby is fed through an intravenous (IV) line. If possible a surgeon will put the bowel back into the abdomen and close the hole in the baby's belly. If there is not enough room for the bowel to fit into the abdomen, a plastic bag (a Silo) is placed over the bowel, and the bowel is allowed to return to the abdominal cavity with the aid of gravity. Once the bowel has returned to the abdomen, the abdomen is closed surgically. After the procedure, the baby is fed using a feeding tube until normal bowel function occurs. Babies may spend 1 to 2 months or more in the intensive care unit.