

GASTROSCHISIS

What is gastroschisis?

Gastroschisis is a condition that occurs very early in pregnancy, usually between 8 to 10 weeks of gestation. Gastroschisis is a hole in the abdominal wall next to the umbilical cord that allows the intestine to spill outside of the abdominal cavity. In some cases the testes or ovaries may also be outside of the abdominal cavity.

Why does gastroschisis occur?

There is no known reason why in some babies a hole occurs in the abdominal wall allowing the intestines to develop outside of the abdomen. This condition occurs in 1 in every 5,000 pregnancies. Babies with a gastroschisis do not usually have any other problems.

How is gastroschisis diagnosed?

The majority of infants with a gastroschisis are diagnosed in the antenatal period during routine ultrasounds. However, occasionally it may be diagnosed at birth. Up to 50% of babies with gastroschisis are delivered early. Many of these babies are delivered early because there are concerns regarding the condition of the intestines or that they are not growing well.



Intestine protruding
through abdominal
wall defect

<http://www.nlm.nih.gov/medlineplus/ency/imagepages/9028.htm>

How is gastroschisis treated?

If the gastroschisis is diagnosed antenatally, the pregnancy will be followed closely and regular ultrasounds will be done to watch the intestine. As there is no covering over the intestine the amniotic fluid can irritate the intestine, which may result in areas of narrowing (strictures). If the intestine becomes unhealthy or blocked by these strictures it may be necessary to deliver your baby early to help save these areas of intestine. After your baby has been delivered he/she will need to be looked after in the neonatal intensive care unit.

The baby can lose a lot of body heat and fluid through the intestines being outside of the abdomen. Your baby will need to be cared for in a warm environment and the intestines covered to prevent infection and fluid losses. As your baby will not be able to feed, intravenous fluids will be given to provide nutrition and antibiotics. A special intravenous line called a PICC line will be inserted to provide your baby with nutrition. As with all intravenous lines they have the potential to become blocked, tissue or migrate out of the vessel, but these possible complications are outweighed by the need for intravenous access for nutritional requirements.

When your baby is medically stable he/she will either have a “silo” (see below) placed over the gastroschisis or be taken to the operating theatre at which time the paediatric surgeons will place the intestine back into the abdominal cavity. This is usually done within 24 hours of birth and often within the first few hours. The surgeons will need to look carefully at the intestines before putting them back into the abdomen to determine whether there are any strictures. Occasionally there are areas of intestine that have become so unhealthy they cannot recover, and these areas have to be removed. If there are some strictures these areas of intestine may also need to be removed and the two ends joined together.

If a lot of the intestine has developed outside of the abdomen the abdominal cavity may not be big enough and not all of the intestine can be replaced at the initial surgery. In this case a small bag called a ‘silo’ is placed over the intestine and the hole so that the intestine is covered. The silo is slowly made smaller until the abdomen expands enough to contain all of the intestines. In this situation your baby may need a second operation to remove the silo and place the remaining intestines into the abdomen. However, the majority of babies with gastroschisis will only need one operation. The appendix is normally in the lower right side of the abdomen, but with a gastroschisis it may not be in this position. As this may cause problems with diagnosing appendicitis in later life, the appendix is usually removed at the time of the surgery.

What happens after surgery?

Once the intestine has been returned to the abdomen, this may put pressure on the diaphragm and your baby may need help with their breathing. This may mean that your baby needs to be attached to a ventilator for a couple of days after the surgery. Babies are given pain relief after surgery to ensure they are comfortable. Following surgery your baby’s intestine needs time to recover and he/she will be fed with intravenous fluids. Your baby will then commence oral feeds, initially in small amounts. It may take several weeks for your baby’s intestines to absorb the feeds properly, and during this time they will continue to receive nutrition from intravenous fluids. When your baby is ready to go home depends upon when they can tolerate all oral feeds. If you intended to breast feed your baby, this is still possible. The nursing staff will support you with expressing your breast milk and then breast feeding when your baby is able to tolerate oral feeds.

Is the condition life-threatening?

The majority of babies with a gastroschisis survive and lead a normal life. Very occasionally babies do not survive. In some babies large areas of intestine may be so unhealthy that there is not enough intestine left to support life. Some babies who require a silo or lose large sections of intestine may need intravenous nutrition for a long time. Intravenous nutrition can result in liver damage and/or serious infections that may be life-threatening.

Infants with a gastroschisis generally do not have further problems following surgical correction. Very occasionally scar tissue may develop following the surgery, which may cause an obstruction and require further surgery.

If you have any further questions please ask the medical and nursing staff.