

Omphalocele

An omphalocele is a birth defect, which is an abnormality that occurs before birth as a fetus is forming in its mother's uterus. Some of the abdominal organs protrude through an opening in the abdominal muscles in the area of the umbilical cord. A translucent membrane covers the protruding organs.

The omphalocele may be small, with only a portion of the intestine protruding outside the abdominal cavity, or large, with most of the abdominal organs (including intestine, liver and spleen) present outside the abdominal cavity. Further, the abdominal cavity itself may be small due to underdevelopment during pregnancy.



What causes an omphalocele?

It is not known what causes omphalocele. Steps that normally happen in the development of the abdominal organs and muscles simply did not happen properly. It is not known to be caused by anything the mother did during pregnancy.

Many babies born with an omphalocele also have other abnormalities.

Why is an omphalocele a concern?

Since some or all of the abdominal organs are outside the body, infection is a concern, especially if the protective membrane around the organs breaks. Also, an organ may lose its blood supply if it becomes pinched or twisted. A loss of blood flow can damage the affected organ.

How is an omphalocele diagnosed?

Omphalocele can often be detected on fetal ultrasound in the second and third trimesters of pregnancy. A fetal echocardiogram (ultrasound of the heart) may also be done to check for heart abnormalities before the baby is born.

If your baby has been diagnosed with an omphalocele, we would be happy to schedule a consultation with your family and one of our top surgeons, as well as a CHOC neonatologist and your perinatologist, to prepare for the birth and subsequent care of your baby.

After birth, the omphalocele can be noted by the doctor during the physical examination. X-rays may also be done after birth to evaluate abnormalities of other organs or body parts.



How is an omphalocele treated?

For a “small” omphalocele (only a portion of the intestine protruding outside the abdominal cavity), shortly after birth, surgery is done to return the organs to the abdomen and close the opening in the abdominal wall.

For a “large” omphalocele (most of the abdominal organs, including intestine, liver and spleen are present outside the abdominal cavity), the repair is done in stages and may include the following:

- At first, sterile, protective sheeting is placed over the abdominal organs.
- Because the abdomen may be small and underdeveloped, it may not be able to hold all of the organs at once. Therefore, the exposed organs are gradually moved back into the abdomen over several days or weeks.
- The abdominal wall is closed surgically once the organs have been returned to the abdominal cavity.

Because the abdominal cavity may be small and underdeveloped, and the organs may be swollen, a baby with an omphalocele may have breathing difficulties as the organs are returned to the abdomen. Your baby may need help from a breathing machine called a mechanical ventilator while the swelling is decreasing and the size of the abdominal cavity is increasing.

What is the long-term outlook for a baby born with an omphalocele?

Problems in the future often depend on:

- The size of the omphalocele
- If there was a loss of blood flow to part of the intestine or other organs
- The extent of other abnormalities

Babies who have damage to the intestines or other abdominal organs may have long-term problems with digestion, elimination and infection.

Please talk with your baby’s doctor regarding the prognosis for your baby.

To schedule a consultation with a CHOC Children’s pediatric surgeon, please call 714-364-4050.

Photo provided by Centers for Disease Control and Prevention, National Center on Birth Defects and Developmental Disabilities.

