

Fact Sheet

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Gastroschisis and Omphalocele

What are gastroschisis and omphalocele?

Both gastroschisis and omphalocele are abdominal wall defects. An opening in the wall of the abdomen allows some of the abdominal contents to protrude outside of the body.

Gastroschisis is an opening in the skin that allows some of the abdominal contents to stick out from the body. The protrusion is not covered by skin and usually appears to one side of the navel. The wall of the abdomen may form normally during development until a weak spot opens. This opening allows the inner organs (usually the small intestines) to come out of the body.

An omphalocele occurs when the intestines and possibly other abdominal organs (liver and spleen) stick out through the navel. An omphalocele has a covering of skin or membrane, which forms a sac around the navel. During development, the wall of the abdomen does not fully close at the navel over the inner organs. This protrusion can be a small umbilical hernia or a large bulge.

What types of problems occur with gastroschisis and omphalocele?

Gastroschisis is usually isolated (the only birth defect the child has). Because the intestines are exposed, they could start to become dry and the child may have trouble regulating body temperature. Also, special care must be taken to prevent infection. Surgery is typically required to return the bowels to the abdominal cavity. After surgery, some problems with digestion or feeding may occur that may require further treatment. Most children with gastroschisis do not have long-term health problems.

For children born with an omphalocele, 25-40% have other significant birth defects. Because the intestines are covered with a sac, there may be less concern about fluid loss, but temperature loss and infection must be prevented. As with gastroschisis, surgery returns the bowels to the abdominal cavity. After surgery, some problems with digestion or feeding may occur that may require further treatment. Most children with omphalocele do not have problems due to the omphalocele. They may have problems due to other birth defects.

How common are gastroschisis and omphalocele?

Gastroschisis occurs in about 200 births each year in the United States. Omphalocele occurs in about 600 births each year in the United States. In Virginia, about 20 children are born yearly with gastroschisis or omphalocele. Gastroschisis is more common for younger mothers, but it can occur with parents of any age.

What causes gastroschisis and omphalocele?

The cause of most cases of gastroschisis is unknown. It is thought that cases may be due to a combination of environmental factors and genetic factors. Parents of a child with gastroschisis have a higher chance of having another child with gastroschisis. This chance is about 4%.

Omphalocele can occur as the only birth defect a child has. It can also occur in combination with other birth defects as part of a syndrome (combination of findings). The way in which a syndrome is passed through the

family is specific to the given syndrome. A genetic counselor or geneticist can help you determine the risks for your family and situation.

How are gastroschisis and omphalocele treated?

In both conditions, the child may be given special feeding treatments that are given by vein. A nasogastric (NG) tube is used to remove stomach fluids through the nose.

Gastroschisis requires surgery to return the bowels to the abdominal cavity. Sometimes this procedure can be done in one step. Other times the bowels are first placed inside a “silo” (a plastic covering). The silo is often placed shortly after birth. Then the organs are slowly returned to the abdomen over several days.

Omphalocele repair requires surgery over a period of time. A plastic silo is placed over the sac of internal organs and slowly lowered into the abdomen. This may be done soon after birth or after the child has had a chance to grow and have treatment for other birth defects, like heart problems.

Where can I go for more information about gastroschisis and omphalocele?

March of Dimes Birth Defects Foundation
www.modimes.org
1-888-MODIMES (1-888-663-4637)

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