

Umbilical (belly button) Hernia

After birth, when the end of the umbilical cord dries up, a small opening is left in the abdominal wall. Failure of the muscles to close around this opening causes an umbilical hernia. The opening usually is noticed within a few weeks after separation of the cord.

Incidence

Umbilical hernia is one of the most commonly encountered abnormalities in the early months of infancy. There is a distinct racial predilection, with African-American infants having a greatly increased incidence of umbilical hernia. Hernias occur with equal frequency in boys and girls. Most umbilical hernias close spontaneously so that only a few children have a hernia that persists beyond four or five years of age.

Diagnosis

Umbilical hernias are usually recognized in the early weeks of life after the cord falls off and the belly button heals. They rarely cause any symptoms and are seen as a bulge at the umbilicus. The muscle at the umbilicus has a hole from one-eighth to one inch in diameter.



Figure 1: Characteristic appearance of an umbilical hernia in a 4-month-old boy. The muscle opening measures only 1.5 cm or $\frac{3}{4}$ inch.

At times, the skin over the umbilical hernia may become severely stretched and resemble a mushroom. When an infant strains or cries, the umbilical hernia may become tense, but with relaxation the contents of the hernia may be easily pushed back into the abdomen. The skin overlying the umbilicus, although stretched out, is usually otherwise normal.

Complications

Complications of umbilical hernias are uncommon. In contrast to inguinal hernias, it is very rare for bowel to get stuck (incarcerated) within an umbilical hernia, although it can happen and children should be taken directly to a doctor if it does. Because fewer than 1% of umbilical hernias ever incarcerate there is usually no urgency to repair the hernia as long as the hernia can be reduced (pushed back into the abdomen). Other complications of umbilical hernia include erosion of the overlying skin and, very rarely, spontaneous rupture with exposure of intestine. Umbilical hernias rarely cause abdominal pain so children with umbilical hernias who develop pain should be evaluated for a cause other than the hernia.

Treatment

As most umbilical hernias close spontaneously, no treatment is usually necessary in the first three to five years of life. Umbilical strapping with a coin or other object placed over the hernia to maintain it in a reduced position **has not** been shown to promote earlier closure and should be avoided. Surgical repair of umbilical hernias is reserved for three groups: patients whose hernias have become stuck out (incarcerated); patients with large, protruding hernias; and patients with hernias that are not closing. The rare infant who develops incarceration that requires that a doctor push the intestines back in with difficulty should have prompt repair. In most children with umbilical hernias who require an operation, the hole has simply not closed by itself by the age of four to five. After that age closure of the hole is unlikely to occur on its own and the hernia may remain open into adult years, when complications are more frequent and serious.

Operative Technique

Repair of umbilical hernia is performed on an outpatient basis using a general anesthetic. A curving (smile) incision is made within the skin fold of the lower half of the umbilicus. The sac that contains the hernia is removed and the edges of the hole in the muscle closed with sutures. The undersurface of the dome of skin is then sutured to the muscle near the area where it had been closed. The skin is closed with absorbable stitches or glue. Wound infection is a rare complication after umbilical hernia repair. Recurrence of a hernia after repair is also very unusual.