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# Jejunioileal Atresia

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Jejunioileal atresias are complete obstructions of the jejunum or ileum.

Caused by arterial and venous abnormalities in the mesentery of the bowel of the fetus

More common in the jejunum, equal in males and females and may be single or multiple in nature. Associated anomalies are less common than in duodenal atresias.

## Classification

Jejunioileal atresia – This involves an obstruction of the middle region (jejunum) or lower region (ileum) of the small intestine. The part of the intestine that is blocked off expands, which lessens its ability to absorb nutrients and push its contents through the digestive tract. There are four subtypes of jejunioileal atresia:

1. Intestinal Atresia type I – A web-like membrane forms inside the intestine while the baby is forming in the uterus. The membrane blocks the intestine, but the intestine itself usually develops to a normal length.
2. Intestinal Atresia type II – The dilated section of intestine forms a blind end. It is connected to a smaller segment of the intestine by scar tissue. The intestine develops to a normal length.
3. Intestinal Atresia type III – Two blind ends of intestine are separated by a flaw in the intestinal blood supply. This significantly reduces the length of the intestine, which may result in long-term nutritional deficiencies or short gut syndrome.
4. Intestinal Atresia type IV – Multiple sections of the intestine are blocked. This may result in a very short length of useful intestine.

Infants with any of the four types of jejunioileal atresia usually vomit green bile within a day of their birth. However, those with obstructions farther down in the intestine may not vomit until two to three days later. A baby with jejunioileal atresia may develop a swollen belly, and not have a bowel movement during the first day of life the way most babies do.

## Diagnosis

Intestinal obstructions are increasingly being identified through prenatal ultrasounds. This imaging technique may indicate excess amniotic fluid (polyhydramnios), which is caused by the failure of the intestine to properly absorb amniotic fluid. If your physician suspects intestinal

atresia or stenosis, your infant will undergo the following diagnostic procedures after being stabilized:

1. Abdominal X-ray — In most cases, this can establish a diagnosis.
2. Lower gastrointestinal (GI) series — This is a procedure that examines the rectum, large intestine and lower part of the small intestine. An X-ray contrast agent is given into the rectum as an enema; this coats the inside of the intestines, allowing them to be seen on an X-ray. An abdominal X-ray may show narrowed areas (strictures), obstructions, the width (caliber) of the bowel and other problems.
3. Upper GI series — This procedure examines the organs of the upper part of the digestive system. It is particularly useful in cases where there is an upper intestinal obstruction (pyloric or duodenal atresia). A liquid called barium, which shows up well on X-rays, is given orally or administered through a small tube placed through the mouth or nose into the stomach. X-rays are then taken to evaluate the digestive organs.
4. Abdominal ultrasound — Ultrasonography is an imaging technique used to view internal organs as they function, and to assess blood flow through various vessels. Gel is applied to the abdomen and a special wand called a transducer is placed on the skin. The transducer sends sound waves into the body that bounce off organs and return to the ultrasound machine, producing an image on the monitor. A picture or videotape of the test is also made so it can be reviewed later.

Due to the high percentage of infants born with intestinal atresia who also have associated, life-threatening abnormalities, echocardiography and other imaging studies of the cardiac and renal regions may also be performed after the infant is stabilized.

## Treatment

With jejunioileal atresia, the type of surgery depends on the type of atresia, the amount of intestine present and the degree of intestinal dilation. The most common operation involves removal of the blind intestinal segments, and the remaining ends are closed with sutures. Similarly, a narrowed (stenosed) segment of the intestine can be removed and the bowel sutured together, thus establishing intestinal continuity.

Surgery is performed under general anesthesia with careful monitoring in a warmed operating room

The type of defect determines the surgical procedure:

An incision is made into the bowel wall at the level of the web, the web removed and the bowel wall sutured (jejunoplasty)

Alternately the abnormal bowel is resected (removed) and the cut ends of the bowel anastomosed (sewn together)

Type II – IV – Atretic bowel segment is removed with anastomosis (cut ends sutured together)

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