

Meckel Diverticulum

Patient Information Series-What you should know, what you should ask.

What is a Meckel Diverticulum

The small bowel (intestine) is normally a continuous tube of the same diameter throughout each of its different segments. When there is a protrusion, or outpouching of the bowel wall at the end of the small bowel, this is called a Meckel Diverticulum. This is a rare finding in fetuses. Approximately 2% of children are found to have a Meckel Diverticulum by age 2. When a Meckel Diverticulum is identified during prenatal life, evaluation after delivery can confirm the diagnosis and may prevent the baby from needing surgery on an emergency basis.

How is Meckel's diverticulum detected?

A Meckel Diverticulum is typically identified during pregnancy as a dilated loop of bowel during a prenatal ultrasound. Most cases are identified at the time of the 20 week ultrasound, however, they can be seen at the time of the 11-13 week scan as well.

What causes Meckel diverticulum?

In very early pregnancy, the developing embryo receives nutrients through a small tube (omphalomesenteric duct) which connects the yolk sac to the bowel. Beginning in the 5th to 7th week this tube normally disappears, and the intestines become completely separate from the yolk sac. If this tube remains it can result in a variety of bowel problems, most commonly a Meckel Diverticulum.

Should I have more tests done?

You will be offered additional testing to help determine the reason for the dilated loop of bowel. The exact testing offered will be based on the presence or absence of other ultrasound findings, your medical and pregnancy history and results from any earlier testing you may have had. You may also be offered consultation with a Genetic Counselor, a medical professional with special training in genetic conditions.

Tests that may be offered include:

- **A detailed ultrasound examination:** This is to carefully look at your baby for any other ultrasound findings or abnormalities. Specialized ultrasound examinations will evaluate the remainder of the normal structures in the abdomen, the rest of the bowel and the rectum and anus. It is important to remember that ultrasound can identify many but not all abnormalities.
- **Amniocentesis:** This is a test that removes a small amount of fluid from around the baby by a thin needle. The fluid can be tested for chromosomal abnormalities as well as fetal infections.
- **Cell-free fetal DNA:** This is a maternal blood test that uses your baby's cells that are in your bloodstream. It is a very good genetic screening test for certain conditions, such as Down syndrome, but it is not as accurate as an amniocentesis.
- **Maternal blood test for cystic fibrosis:** Because cystic fibrosis is a genetic condition, you only need to be tested for it once. Your results will never change. It may have already been done as part of your normal pregnancy labs.

What are the things to watch during pregnancy?

Because the appearance of the bowel and dilated bowel loops may change over time, additional ultrasound examinations may be performed during pregnancy to assess the size, location and appearance of the dilated loop of bowel. Later in pregnancy, it is easier to evaluate the rectum, anus and fluid volume. Sometimes what initially appears to be a Meckel Diverticulum may turn out to be a normal bowel loop, or additional findings may point to another diagnosis later in the pregnancy.

What does it mean for my baby after it is born?

After the baby is born, the pediatricians will perform a physical examination and may evaluate the baby further. A variety of tests including: upper or lower GI series, barium enema, Technitium 99 scan, CT or MRI scan may be performed to evaluate the baby further. A surgeon may be consulted to determine if the baby should have an operation to remove the Meckel Diverticulum prior to discharge from the hospital or whether waiting until the baby is older would be preferable.

Some babies with a Meckel Diverticulum can develop symptoms of a bowel obstruction (blockage) after birth. Sometimes babies and children are fine for months or even years. If the baby goes home from the hospital after birth without being operated on, the baby should be monitored for pain or swelling of the tummy, bleeding from the rectum, vomiting or abdominal distension. If the baby has any of these symptoms, the pediatrician should be notified immediately.

Fortunately, most children who have had Meckel diverticulum have no long-term problems and are otherwise healthy. Long term complications are very rare. They include scarring, which can lead to bowel obstruction and need for additional surgery in the future, and problems with digestion if a large amount of bowel needs to be removed along with the Meckel diverticulum.

What other questions should I ask?

- Are there any other abnormalities on the ultrasound?
- Should I have any additional genetic testing?
- How often will I have ultrasound examinations done?
- Will my baby need surgery after delivery?
- Where will the baby receive the best care after it is born?
- Can I meet in advance the team of doctors that will be assisting my baby when it is born?