



Meckel's diverticulum

This leaflet explains about the causes, symptoms and treatment of Meckel's diverticulum and where to get help at Great Ormond Street Hospital (GOSH).

Meckel's diverticulum is one of the most common congenital digestive system disorders – congenital means that the disorder was present at birth. When your child's small intestine was developing, a small pouch formed consisting of tissue from elsewhere in the body. Usually the pouch – also known as Meckel's diverticulum – is formed from tissue similar to that found in the pancreas or stomach. In many cases, Meckel's diverticulum does not cause any problems. Up to two per cent of the population will have a Meckel's diverticulum.

What causes Meckel's diverticulum?

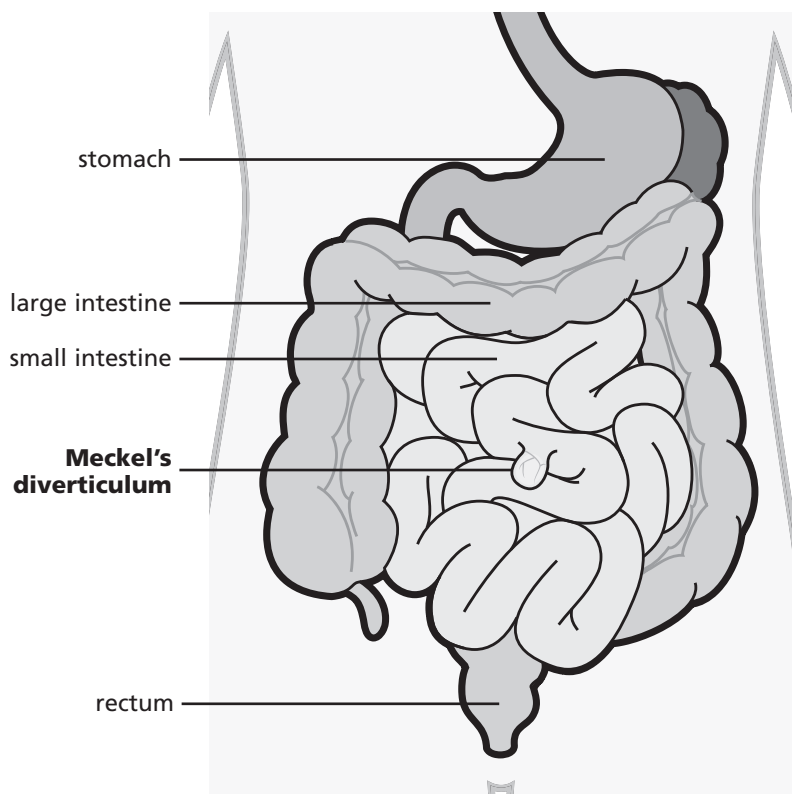
We do not really know why this pouch forms persists during pregnancy. The intestines form early in pregnancy as a long straight tube – before the tenth week they grow and bend to develop into the separate organs making up the digestive system. The Meckel's diverticulum occurs at this point of bending, and is a leftover bit of development.

What are the signs and symptoms of Meckel's diverticulum?

Many people will be unaware that they have this pouch in their small intestine as it causes no problems at all.

However, in a small proportion of children, the pouch releases acid like the stomach which over time can cause ulcers to develop in the small intestine. These can worsen and bleed which shows as blood in the poo. It can also leak the liquid inside the small intestine into the abdomen, leading to a serious infection called peritonitis.

The pouch can also twist leading to a condition called volvulus. Twisting can cause the blood supply to the intestine to be cut off, which can be a life threatening condition. It can also fold inwards leading to a condition called intussusception. Symptoms of volvulus and intussusception can include sudden bouts of crying and pulling the legs into the body which then stop suddenly.



As little or no food or liquid can pass the twisted or blocked portion, your child may also pass little or no faeces (poo). This causes cramps, as the bowel cannot push food and liquid past the twisted section of bowel. The twisting also cuts off the blood supply to the bowel, which can lead to the tissues in the bowel becoming inflamed and starting to die.

Vomiting, especially green vomit is another symptom of volvulus and intussusception, as your child is unable to digest food as usual. If the condition is not treated, your child will become dehydrated which can be life threatening. The symptoms of dehydration may appear in phases and include lethargy, less frequent wet nappies and the soft spot (fontanel) on the top of the head may be sunken.

How is Meckel's diverticulum diagnosed?

If your child has a blockage an x-ray or ultrasound scan will be used to identify the affected part of the intestine. Blood and faeces (sample of poo) tests may also be used to check for signs of internal bleeding.

Sometimes a test called a Meckel's scan is used to show your child's intestine and whether it contains a certain type of tissue that can cause bleeding. The scan works by injecting a substance called an isotope into your child's veins, which then travels through the blood supply to the intestine. A series of pictures are taken while the isotope is passing through the intestine. This scan may not always identify the pouch.

Doctors might carry out a laparoscopy to look for the pouch. This involves inserting a small telescope and camera inside your child's abdomen. Meckel's diverticulum may also be discovered incidentally during another procedure.

How is Meckel's diverticulum treated?

If the Meckel's diverticulum is causing problems, your child will need an operation to correct it. The surgeon can use keyhole (laparoscopic) or open surgery depending on how well your child is at the time.

The surgeon will straighten out the twisted bowel and check it for any unhealthy areas.

They will remove any parts of the bowel where tissue has ulcerated or died. The amount can vary, but the surgeon will leave as much of the bowel as possible.

What happens next?

Immediately after the operation, your child will be kept fasted so the stomach and bowel can start to heal. Once the bowel starts to work, the doctors will let you know when you can start to feed your child again, starting with small amounts, and increasing the amount as tolerated.

When your child's bowel has recovered completely, you will be able to feed them solids. The doctors will let you know when this is likely. Your child will be able to go home once they are feeding well. This is usually a week or so after the operation.

Your child's abdomen may feel sore for a while after the operation, but wearing loose clothes can help. Your child will need to have regular pain relief for at least three days, and we will give you the medications to take home with you. As well as the medications, distracting your child by playing games, watching TV or reading together can also help to keep your child's mind off the pain. The stitches used during the operation will dissolve on their own so there is no need to have them removed. If possible, keep the operation site clean and dry for two to three days to let the operation site heal properly. When your child has a bath, do not soak the area until the operation site has settled down.

You may need to come back to hospital for an outpatient appointment. We will send you the date in the post.

The outlook depends on how quickly the problem was diagnosed and treated as this in turn can influence the amount of damage to the bowel.