



Umbilical and epigastric hernia

This leaflet explains hernias, how they can be treated and what to expect when your child comes to Great Ormond Street Hospital (GOSH).

What is a hernia?

Hernias develop when there is a weak area in the abdomen or a small opening in the abdominal muscles, causing the tissues below to bulge. Both children and adults can have hernias.

What causes hernias and how common are they?

Hernias occur when a weak area of muscle allows the internal organs to push outwards to form a bulge. This weak area develops in different ways, depending on the area of the abdomen. We do not know exactly why this happens, but it is not due to anything that happened during pregnancy.

- **Umbilical hernias** form when the opening for the umbilical cord does not closely properly so allow the abdominal lining and bowel to bulge out to form a lump.
- **Epigastric hernias** form when tissues joining the muscles in the upper part of the abdomen have not formed properly and allow fatty tissue to bulge out to form a lump.

Hernias are a common reason for children needing an operation. They tend to affect more boys than girls – about six in 100 children will have an umbilical hernia.

How is a hernia diagnosed?

Your doctor will be able to diagnose the hernia by clinical examination as it appears as a characteristic lump in your child's abdomen. Your child may not need any further diagnostic investigations.

How are hernias treated and are there any alternatives?

The opening for the umbilical cord continues to close after a baby is born so may not need treatment. If an umbilical hernia is still present by the time a child is three years old, an operation to repair it will usually be suggested. Epigastric hernias are usually repaired only if they are causing discomfort or getting in the way of normal everyday life and activities.

If required, hernias can be treated in an operation under general anaesthetic, lasting between 30 minutes and an hour. In many cases, this can be as day surgery – your child will arrive at the hospital, have the operation and be able to go home on the same day. Occasionally a child will need to stay in hospital overnight.

If surgery is planned, you will receive information about how to prepare your child for the operation in your admission letter and booklet. Your child should not have anything to eat or drink beforehand for the amount of time specified in the letter or telephone call. It is important to follow these instructions - otherwise your child's operation may need to be delayed or even cancelled.

On admission day, your child's surgeon will explain the operation in detail, discuss any worries you may have and ask your permission for the operation, by asking you to sign a consent form. An anaesthetist will also see you to explain your child's anaesthetic in more detail. If your child has any medical problems, such as allergies, please tell the doctors.



What does the operation involve?

Umbilical and epigastric hernias are usually repaired using open surgery.

The surgeon will repair an umbilical hernia by making a small incision in a natural skin crease near the tummy button, using stitches to close the opening. If the abdominal lining and bowel are sticking out, the surgeon will push them back before closing the opening.

If an epigastric hernia needs repair, the surgeon will first mark the affected area on the skin using pen. This is important because the hernia may become less obvious when a child is under a general anaesthetic. The surgeon will repair the epigastric hernia by making an incision over the area, pushing the fatty tissue back inside and repairing the opening with stitches.

In both cases, the skin incision will be closed using dissolvable stitches and steri-strips®, sometimes with skin glue as well.

Are there any risks?

Any surgery also carries a small risk of infection or bleeding. The area may be sore and bruised for a while after the operation but this will become more comfortable and fade over the next week or so. If there is bruising under the skin after an umbilical hernia repair, a pressure dressing may be used to reduce this.

Every anaesthetic carries a risk of complications, but this is very small. Your child's anaesthetist is an experienced doctor who is trained to deal with any complications. After an anaesthetic, a child may feel sick and vomit, have a headache, sore throat or feel dizzy. These effects are usually short-lived.

Very occasionally, the hernia can return which would require further investigation and surgery.

What happens afterwards?

Your child will come back to the ward to recover, and will be able to go home once he or she has had something to eat and drink.

When you get home

It is quite normal for your child to feel uncomfortable for a day or two after the operation. Usually paracetamol will be enough to relieve any pain if you give it regularly according to the instructions on the bottle. You do not need to wake your child during the night to give the medicine. If your child needs stronger medicine, we will give you some before you go home.

Your child may feel sick for the first 24 hours after the anaesthetic. You should encourage your child to drink plenty of fluids, and as long as he is drinking, it does not matter if he or she does not feel like eating for the first couple of days. The stitches will dissolve on their own within two weeks or so. The wound site may be closed by steri-strips® (plastic strips which are stuck on the skin and used, like stitches, to close wounds). The steri-strips® usually fall off of their own accord. If they have not fallen off within a week, you can soak them off using a wet flannel. The skin glue usually flakes away over a period of days.

Your child should not have a bath or shower for two days after the operation. After this, it is fine for your child to have a shower, but try to avoid long baths as this may cause the scab to soften and fall off too early.

Your child may feel tired and a bit clumsy for the first day or so after the operation, so avoid anything that might lead to a fall. Rough and tumble play will be uncomfortable so should be avoided until the area has healed. Your child should be ready to go back to school or nursery about a week after the operation.



You should call your family doctor (GP) or the ward if:

- **your child is in a lot of pain and pain relief does not seem to help**
- **your child has a high temperature and paracetamol does not bring it down**
- **the wound site looks red, inflamed and feels hotter than the surrounding skin**
- **there is any oozing from the wound**

If you have any questions, please call 020 7405 9200 and ask for the ward from which your child was discharged.

Compiled by the General Surgery department in collaboration with the Child and Family Information Group
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