

Information leaflet for parents/carers

Fundoplication



Introduction

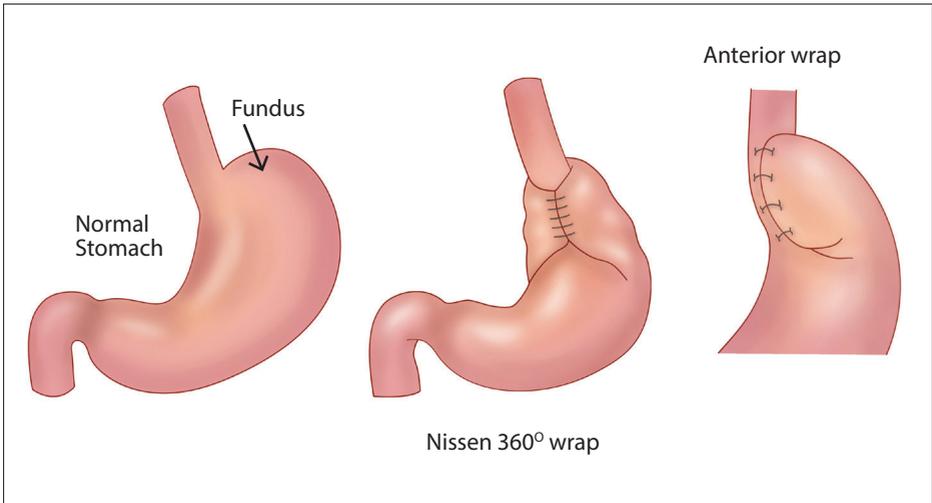
Your child has gastro oesophageal reflux disease (GORD), which is where acid from the stomach leaks up into the oesophagus (gullet). It usually occurs as a result of the ring of muscle at the bottom of the oesophagus becoming weakened. Normally, this ring of muscle opens to let food into the stomach and closes to stop stomach acid leaking back up into the oesophagus. However, for people with GORD, stomach acid is able to pass back up into the oesophagus.

This causes symptoms such as vomiting, heartburn, cough, and poor growth. If GORD is left untreated the continuous acid leak up into the oesophagus will damage it – this can make swallowing difficult and may require an operation to correct it.

What is a Fundoplication?

A fundoplication is an operation that tries to prevent 'refluxing' (where the acid leaks into the oesophagus). The operation uses the top of the stomach to wrap it around the bottom part of the oesophagus (see diagram) so it is less likely for food, drink or acid to travel back into the oesophagus.

There are different types of Fundoplication depending whether the stomach wrap around the oesophagus is partial or complete around the oesophagus; your surgeon will discuss with you the reasons and benefits of one wrap type against another.



What does a Fundoplication involve?

The Fundoplication will be carried out under general anaesthesia (when your child is put to sleep for the operation either by gases or injections of anaesthetic drugs).

The operation is usually done by 'keyhole' surgery where only 4-5 very small cuts are made in the tummy for the instruments. A harmless gas (carbon dioxide) is used to inflate the tummy to make space for the operation to be performed. This gas will disperse naturally after the operation.

Sometimes, although the operation is started using the keyhole technique, it is not possible to complete the operation this way. In this case, the operation is converted to open surgery which means we have to make a larger cut. Sometimes open surgery is the first, safest option.

There are different reasons why each type of operation is chosen. Your surgeon will discuss the choice of operation with you and will inform you which option they think will be the best for your child.

Some children will have a gastrostomy (feeding tube) inserted at the same time of the Fundoplication. If your child is also having a gastrostomy, please ask your child's surgeon for a Gastrostomy leaflet if you haven't already had one.

Your child will be in theatre for about 2 ½ hours. This includes the anaesthetic time, the operating time and the time required it will take to wake up after the operation.

What are the risks of a Fundoplication?

As with all operations there are risks but these are rare. They include:

1. Injury to the gullet, stomach, blood vessels and nearby organs: These risks are rare, and if they happen, the surgeon may convert to open surgery to repair any damage.
2. Wound infection: If this happens, your child will need to take some antibiotics.
3. Incisional hernia (some fat from inside the tummy can pop through one of the wounds). This will require another operation to fix it.
4. Shoulder pain if the Fundoplication was performed by keyhole surgery. This is due to the gas inserted into your child's tummy during surgery, which can become trapped in the body. There's no need to worry, as the gas will gradually disperse and the pain will settle.

5. Retching and failure of the wrap: If your child tries to be sick after having a Fundoplication (e.g. due to having a stomach bug), they might not be able to be sick, but will just retch instead. This can sometimes lead to the wrap becoming undone, undoing the work done by the Fundoplication. If your child is feeling sick and retching, it is important to inform your surgeon immediately (see the 'Further Information section' for contact details), as we can prescribe medication to help your child retch less and lower the risk.
6. Gas bloat. Fundoplication will prevent vomiting (mentioned in the previous point) and will make burping difficult. When this happens in most children, the gas passes through the gut without any problems. However, sometimes gas can become trapped in the stomach, causing 'gas bloat'. This can make some children feel uncomfortable with symptoms of trapped wind (e.g. mild pain, feeling bloated). If your child has a gastrostomy tube in place, the air can be removed through this. If your child is eating normally, to help prevent gas bloat, they must eat food slowly and chew it well before swallowing.
7. Difficulty swallowing: Some children find that it is difficult to swallow after the operation. Giving them a soft, pureed diet for the first few weeks (at least two) is sometimes required until they can swallow easily again. If the problem persists, a special X-ray (contrast) can help us to find out if the wrap is too tight: in this case stretching the wrap slightly by an endoscopy (where we pass a camera down the oesophagus) will make swallowing easier.
8. Dumping. This is where food leaves the stomach too rapidly, meaning it enters the intestine less digested. This can cause nausea, bloating, a cramping pain, dizziness and diarrhoea, as well as low blood sugar levels. If this is happening, it might be that your child needs to change their diet, at least for a while. The Dieticians team will help with you with this matter. Usually, this improves over a few months, meaning the symptoms should go away after a while.

Are there any alternatives to a Fundoplication?

Your child can be given medications (such as Omeprazole and Ranitidine) that can reduce their stomach acid. However these do not stop the reflux itself. If your child has had high doses of these medications but they don't seem to be helping much, then a Fundoplication is the best option for your child's long-term health and comfort.

Preparation before the operation

Your child will normally come to the hospital on the day of the operation where they will be reviewed by the nursing staff, the surgeons and the anaesthetist (the doctor who gives your child the medicine to go to sleep).

Some children with other medical problems may be invited to attend one of our pre-operative assessment clinics a few weeks before the surgery date. This is to ensure you and your child are fully informed about the planned surgery, are seen in advance by the anaesthetist, and where we will carry out any other pre-operative investigations, for example blood tests or a chest X-ray.

If your child becomes unwell:

If your child has a cold, cough or illness such as chicken pox the operation will need to be postponed to avoid complications. Please telephone us to discuss any symptoms of illness before coming to hospital (see the 'Further Information' section for contact details).

Starvation times:

Your child will not be able to eat and drink before the operation: it is not safe to have a general anaesthetic with a full stomach. Specific advice about this will be provided in the letter you will receive to confirm the date and time of the operation and the directions for the admission ward on the day. The starvation times will be checked with you during the ward assessment before the operation. It is very important to follow these instructions, otherwise your child's operation may need to be delayed or even cancelled.

What happens on the day of the operation?

You will come to the ward on the morning of the operation where you will be seen by the nursing staff, a member of the surgical team, and the anaesthetist. You will have a chance to discuss the procedure again and if not already done so, you will be asked to sign a consent form. On the day of the operation, your child may be given a sedative medicine to help them to relax. This will be discussed with you. Parents/carers can accompany the child to the anaesthetic room and stay with them until they are asleep. You may be able to attend in the recovery room when your child wakes up.

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What happens after the operation?

Once your child has returned to the ward the nurse will regularly check your child's pulse, breathing rate, blood pressure and the dressings over the wound. Your child may be drowsy after the procedure and they will have a drip (a tube in their hand or arm attached to a bag of fluid) to prevent dehydration. If your child had a gastrostomy insertion, we will use this tube to keep the stomach empty. If your child did not need a gastrostomy, a nasogastric tube (a feeding tube passed through the nose into the stomach) may be used instead, to prevent retching. This tube is usually removed after 24 hours.

We will give your child painkillers (called 'analgesia') such as morphine. This is in the form of a drip called nurse-controlled or patient-controlled analgesia (NCA/PCA), and it is used for the first 24-48 hours following surgery, or until your child is comfortable.

Some children (with known chest or neurological problems) may need to be monitored in the high dependency unit before being transferred back to the ward.

When can my child eat?

After a Fundoplication, your child can start drinking later the same day if they wish. Most children who fed by mouth before surgery will be able to start eating again on the same day.

For children that were fed by a nasogastric tube before surgery, feeds will re-start via the gastrostomy tube a few hours after surgery.

Because part of the stomach (the fundus) has been used to make the wrap, the overall size/capacity of the stomach is temporarily reduced (by about 10%). Therefore it is occasionally necessary to change your child's diet after surgery and gradually restore it to their normal over a period of weeks. How this is managed depends on whether your child ate by mouth or was fed by a gastrostomy tube before surgery.

When can my child go home?

Your child will be able to go home once they are comfortable and back to their normal eating habits/feeds (either by mouth or by gastrostomy). This is usually 3-5 days after surgery. If your child has had an open operation or other medical problems, they may be in hospital for longer.

If a gastrostomy tube was also inserted, the Nursing staff will also provide you with training and teaching on how to use and look after the tube. Your child's feeds, equipment and other supplies should have been organised by your local team before coming to BCH. Otherwise, this will be organized by the BCH Nutritional Care and Dietician teams. If this is your child's case, please ask your surgeon the Gastrostomy Insertion leaflet.

What care will my child need at home?

Paracetamol ('Calpol') and/or Ibuprofen ('Brufen') can be given to help manage your child's pain. Please follow the instruction on the medication packaging or bottle.

Although your child will not be experiencing reflux any more, their oesophagus lining needs to heal. It is important for your child to continue to take any 'anti-reflux medication' that they were taking before surgery until they return for their out-patient review. It is usual for the anti-reflux medication to be discontinued, usually one at a time.

The sutures (stiches) used to close the wounds are all dissolvable. You can give your child a sponge bath for the first 2 days following surgery, after which you can give them a shower. We would advise that your child doesn't have a bath for 5 days after the operation. Contact sports and heavy physical activity is best avoided for at least 4 weeks after their operation.

Follow up

Your child will be given a follow-up appointment in the children's outpatient department. This will be sent to you in the post. You can report any urgent or general concerns related to the operation after you go home to your GP. Out of hours, you can report these to your child's surgical team, who can be contacted via the hospital switchboard on 0121 333 9999. In an emergency please call 999 or bring your child to the Emergency department of the Birmingham Children's Hospital.

Looking after and sharing information about you

We have a duty of care to help patients and families understand how information about them is kept and shared and we include the following information in all our patient leaflets:

Information is collected about you relevant to your diagnosis, treatment and care. We store it in written records and electronically on computer. As a necessary part of that care and treatment we may have to share some of your information with other people and organisations who are either responsible or directly involved in your care. This may involve taking your information off site. We may also have to share some of your information for other purposes; such as research etc. Any information that is shared in this way will not identify your child unless we have your consent. If you have any questions and/or do not want us to share that information with others, please talk to the people looking after your child or contact PALS (Patient Advice and Liaison Service) on 0121 333 8403.

Further Information

This information was produced using the latest evidence available. Further details are available upon request. If you need any further information or have any more questions please contact the hospital on 0121 333 9999 and ask to speak to your child's Consultant's secretary or ask for the ward from which your child was discharged. This leaflet has been approved by the Department of Paediatric Surgery & Urology at Birmingham Children's Hospital.

Birmingham Children's Hospital NHS Foundation Trust

Steelhouse Lane Birmingham B4 6NH

Telephone 0121 333 9999

Fax: 0121 333 9998

Website: www.bch.nhs.uk

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