Northern Devon Healthcare NHS Trust

Fundoplication (anti-reflux surgery)

Other formats

If you need this information in another format such as audio CD, Braille, large print, high contrast, British Sign Language or translated into another language, please telephone the PALS desk on 01271 314090.

What is a fundoplication?

A fundoplication is an operation performed to treat reflux from the stomach into the oesophagus (food pipe).

Why is it performed?

Reflux occurs when the sphincter at the bottom of the oesophagus (food pipe) does not work properly. This can happen for a number of reasons and causes stomach contents (such as acid and bile) to reflux back up the oesophagus. This can cause symptoms, including heartburn, a sensation of fluid regurgitating into the mouth, and irritation and ulceration in the oesophagus. These symptoms or problems are called gastro-oesophageal reflux disease. Usually, this is first treated with medications to reduce the acid in the stomach, as well as changes to lifestyle and addressing factors that can cause reflux, such as excess body weight.

Anti-reflux surgery may help people who have persistent reflux despite taking their medication, or who have side effects that mean they do not wish to take the medication.

What does it involve?

Before surgery you will usually have undergone a camera test to look inside the oesophagus and stomach, as well as specialist tests at the Royal Devon and Exeter Hospital. These tests are important to make the diagnosis, and guide whether this operation may treat your symptoms. If you are overweight, we will recommend weight loss, as this may improve your symptoms, and make the operation safer and more effective.

The surgery is performed using a laparoscopic (key-hole) approach under a general anaesthetic (when you are put to sleep). Rarely the surgeon will need to perform an open cut to complete the operation. You will normally have 6 small scars through which the key-hole instruments are inserted. A special retractor is inserted to lift the liver out of the way. The abdomen is inflated with carbon dioxide to make space for us to work. The top of the stomach and the bottom of the oesophagus are freed up. If there is a hiatus hernia (when some of the stomach slips up into the chest) this is repaired with stitches (and under certain circumstances an implant).

The top of the stomach (fundus) is then wrapped around the bottom of the oesophagus to make an artificial valve. The scars are all closed with absorbable stitches hidden under the skin and covered with a waterproof dressing or glue. The operation usually takes between 1-2 hours. You may wake up with a small tube in your nose – this drains the stomach to reduce the chance of you vomiting. You usually stay in hospital for 1 night and can go home once we are sure you are managing to drink enough, although you may be able to go home on the same day.

What are the alternatives?

Reflux can be treated with medications, but not everyone gets complete relief with these or the effects may wear off with time. Some people cannot take these medications due to side effects. Reflux can sometimes be improved by making changes to your diet, such as reducing spicy foods, caffeine and alcohol and avoiding eating late in the evening, as well as quitting smoking. If you are overweight, losing weight may be very effective at treating your symptoms.

There are also other surgical options available but these are largely experimental and are not currently offered at this hospital. There is limited evidence that procedures such as inserting a magnetic ring around the bottom of the oesophagus may be effective in the short term, but we do not know how effective this is in the long term. If you are interested in a consultation with a specialist who performs these procedures, then this is something we can help arrange.

Not treating reflux can lead to long term damage in the oesophagus, which increases your risk of getting cancer in the oesophagus.

Special preparations

When you receive your date for surgery, you will also receive instructions about when to start fasting.

You may be asked to follow a special diet in the two weeks leading up to your operation. This is to shrink your liver, which makes the operation safer when we have to lift the liver out of the way.

How will I feel during the procedure?

You will be asleep throughout the operation.

How will I feel afterwards?

You will feel a bit sore after the operation. We will give you pain killers for this and inject lots of local anaesthetic during the operation. We will also give you a drip as you may not be able to drink much straight away. You may wake up with a tube in your nose, which will usually stay in overnight to prevent vomiting. Vomiting straight after this operation can cause the stitches to tear so we do everything we can to prevent this.

It is common to feel bloated after any laparoscopic operation due to the gas – this will go away within 24-48 hours. You may also notice some pain in your shoulders – this is because the gas irritates the diaphragm, which has the same nerve supply as the shoulders.

What happens after the procedure?

After the operation it is always a little difficult to swallow so you will be started on a liquid / pureed diet. You can slowly start to re-introduce soft foods after a week or so, aiming to be back at a normal diet by 6 weeks. This is because the oesophagus becomes quite swollen after the surgery so solid food has trouble passing through. In the long term, you may notice that certain foods (like bread or meat) may be a little more difficult to swallow.

You will go home when you are drinking well, feel well enough and all our checks of you are satisfactory.

What are the risks?

All operations carry some risks, but we do everything we can to keep these as low as possible. The general risks of an operation include:

- Bleeding – normally this is limited to the wounds. Rarely it can be major requiring a blood transfusion or another operation.
- Infection – a minor infection in the wound usually settles with antibiotics from your GP and is uncommon. More serious infections inside the abdomen are rare but usually require admission to the hospital for further treatment.
- Deep vein thrombosis (DVT) or pulmonary embolus (PE); a blood clot in the legs or lungs – your risk will be assessed before surgery and you will either be asked to wear stockings or we will use special calf pumps during the surgery. You will be given injections after the operation to thin the blood and reduce your risk of clots.
- Problems with body systems such as the heart, lungs and kidneys are uncommon, and this risk will be assessed before surgery.

Specific risks of this operation include:

- Damage to structures we are operating on or are nearby is very uncommon. These include the oesophagus and stomach themselves, the spleen, liver, other parts of the bowel, major blood vessels, and the heart and lungs. In the very unlikely event this happens it will normally be identified at the time and repaired. Occasionally this may become apparent in the hours to days after surgery and need another procedure. It is not uncommon to open the lining around the lungs (pleura) resulting in carbon dioxide compressing the lungs a little. This normally resolves within hours without any treatment. The vagus nerves run near to the oesophagus and help control the bowel. In the very unlikely event one or both are injured this can cause long term problems with digestion, including pain, bloating, absorption and diarrhoea.
- Problems swallowing (dysphagia) – this usually settles with time but occasionally either requires an endoscopy to stretch the narrowed point or a further operation to remove a stitch and loosen the wrap. People may also notice particularly chunky things such as steak may be more difficult to swallow in the long term.
- Bloating – you will probably find you are unable to burp properly after the operation due to the way the wrap works. This can make you feel bloated, in which case we recommend eating slowly and avoiding fizzy drinks.

- Recurrence – no operation can ever be guaranteed, and sometimes the wrap can slip or undo, or a hiatus hernia comes back. If this happens, we may be able to do another operation, but it is often more tricky.

- Not improving your symptoms to your satisfaction. Investigating reflux before surgery is very important to be as sure as we can that we are doing the right operation for the right reason. Despite this, no treatment or operation can be guaranteed to work how we would like. On average, most people (about 8 out of 10) are very happy with the operation, and find it has resolved their symptoms or treated them well. They may have some side effects (as above) but find this much better than their reflux. About 2 in 10 find it does not work as they or we would like, and 1 of these may struggle with significant side effects.

- You may also find that (as with any treatment and anti-acid tablets) the effectiveness of the operation gets a little less with time.

Aftercare

You will be discharged with any pain killers you need. You should not need to take any medication for your reflux. There are no stitches to be removed; you can just peel any dressings off in 5-7 days. In this time it is best to keep them as dry as you can. You should not swim or take long baths for 3 weeks.

We will advise you about diet before you leave, but as a rough guide you should aim to build up slowly from liquids to purees to soft food and finally normal diet over about 6 weeks.

You can return to normal activities as soon as you feel able to. Most people take 1-2 weeks off work, by which point you should almost feel back to normal. We would recommend you do not lift anything heavy for about 4 weeks to reduce the risk of developing a hernia at one of the wounds.

You must not drive for 24-48 hours after a general anaesthetic. The decision when you drive after surgery is up to you, and when you feel safe to drive. This is different for everyone, but normally people do not drive for a few weeks.

Follow up

We will see you in the clinic approximately 2-3 months after your operation to check how you are. If you have problems and need to see us sooner, please contact your GP who can get in contact with us, or contact our secretaries directly.

Further information

If you have further questions about your surgery, please contact your consultant’s secretary or ask the team when you arrive for your operation.

PALS

The Patient Advice and Liaison Service (PALS) ensures that the NHS listens to patients, relatives, carers and friends, answers questions and resolves concerns as quickly as possible. If you have a query or concern call 01271 314090 or e-mail ndht.pals@nhs.net. You can also visit the PALS and Information Centre in person at North Devon District Hospital, Barnstaple.

Have your say

Northern Devon Healthcare NHS Trust aims to provide high quality services. However, please tell us when something could be improved. If you have a comment or compliment about a service or treatment, please raise your comments with a member of staff or the PALS team in the first instance.

'Care Opinion' comments forms are on all wards or online at www.careopinion.org.uk.

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