East Kent Hospitals University NHS Foundation Trust

Surgery for reflux disease

Information for patients

This leaflet is not meant to replace the information discussed between you and your doctor, but can act as a starting point for such a discussion or as a useful reminder of the key points.

Your doctor may have given you this booklet because you suffer from “heartburn”, technically referred to as gastro-oesophageal reflux disease (GORD). One new option to treat this condition is through keyhole surgery: **laparoscopic anti-reflux surgery.**

This leaflet will explain to you:

1. **What gastro-oesophageal reflux disease (GORD) is.**
2. **Management options for GORD: medical and surgical.**
3. **How this surgery is performed.**
4. **The expected outcomes.**
5. **What to expect if you choose to have laparoscopic anti-reflux surgery.**

What is gastro-oesophageal reflux disease (GORD)?

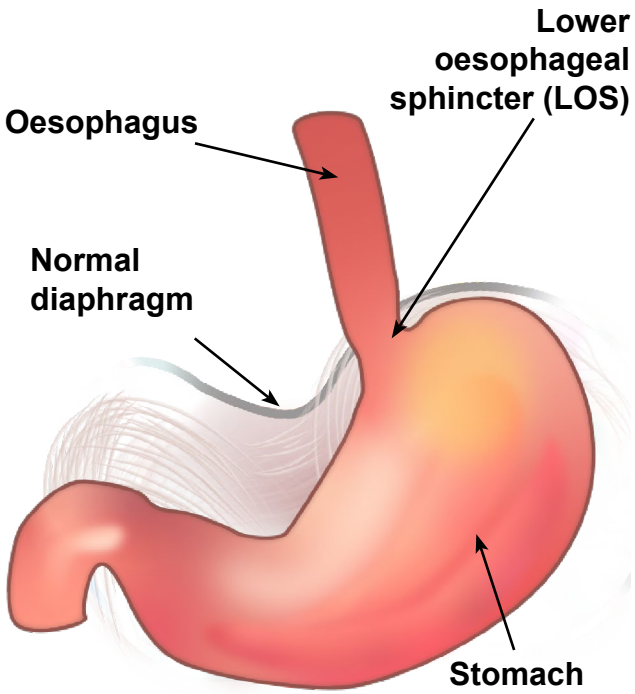
Although “heartburn” is often used to describe a variety of digestive problems, in medical terms, it is actually a symptom of gastro-oesophageal reflux disease. In this condition stomach acids accidentally “back up” from the stomach into the oesophagus.

Heartburn is described as a harsh, burning feeling in the area between the ribs or just below the neck. The feeling may radiate up the chest and in to the throat and neck. Many adults in the UK have this uncomfortable, burning sensation at least once a month. Other symptoms may also include vomiting, difficulty in swallowing, discomfort behind the breast bone and between the shoulder blades, regurgitation (food coming up the chest into the mouth), and loosing blood due to inflammation causing anaemia. Atypical (uncommon) symptoms can be wheezing, chronic coughing, night cough, recurrent chest infections, waking up from sleep with a choking sensation, and change of voice. In extreme cases, there can even be damage to the teeth, including loss of teeth, and poor gums.

What causes GORD?

When you eat, food travels from your mouth to your stomach through a tube called the oesophagus. At the lower end of your oesophagus is a small ring of muscle called the lower oesophageal sphincter (LOS). The LOS acts like a one-way valve, allowing food to pass through to your stomach.

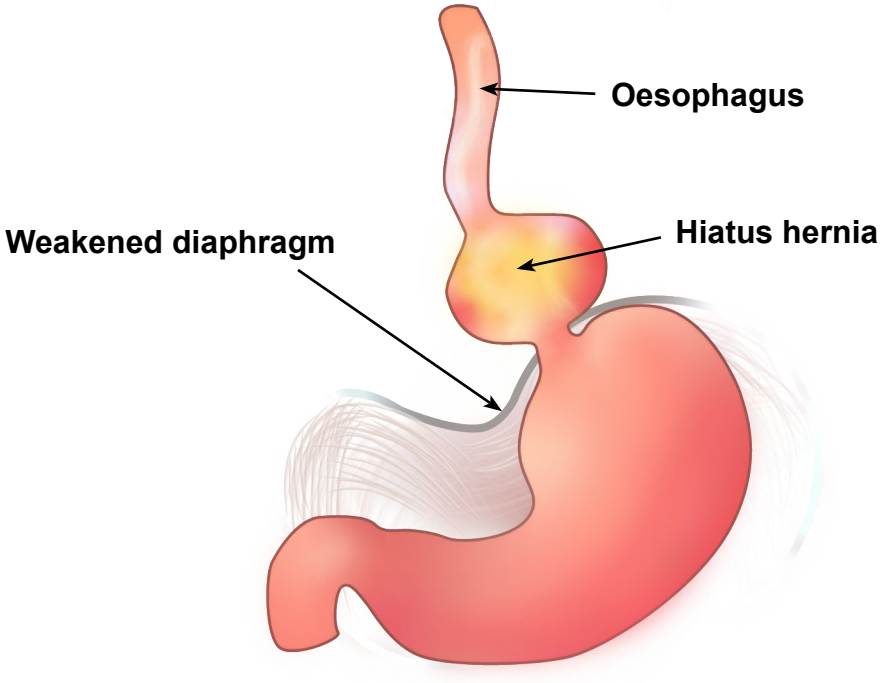
Normally, the LOS closes immediately after swallowing to prevent back-up of stomach juices, which have a high acid content. GORD happens when the LOS does not work properly, allowing acid to flow back and burn your lower oesophagus. This irritates and inflames your oesophagus, causing heartburn and eventually may damage your oesophagus.



What can cause GORD?

Some people are born with a naturally weak sphincter (lower oesophageal sphincter). However, for others fatty and spicy food, certain types of medication, tight clothing, smoking, drinking alcohol, vigorous exercise or changes in body position (bending over or lying down), and increasing body weight may cause the LOS to relax, causing reflux or the accidental back-up of acid.

Hiatus hernia (a weakness in the diaphragm, which allows part of the stomach to enter the chest cavity) may be present in many patients who suffer from GORD. However, hiatus hernia may not always cause the symptoms of heartburn.



How is GORD treated?

GORD is generally treated in three steps.

1. **Lifestyle changes**
   In many cases, changing your diet (for example avoiding hot spicy food) and taking over-the-counter antacids can reduce the harsh symptoms of heartburn. Losing weight, reducing smoking and the amount of alcohol you drink, and changing sleeping patterns and eating times (not going to bed immediately after eating and leaving a gap of at least three hours) can also help.

2. **Drug therapy**
   If symptoms continue despite these lifestyle changes, drug therapy may be needed. Over-the-counter antacids neutralise stomach acids. There are prescription medications (for example ranitidine, omeprazole, and lanzoprazole) that reduce the amount of stomach acid produced. Both may be useful in relieving your symptoms. Prescription drugs (for example H2-antagonists (ranitidine) or proton pump inhibitors (omeprazole, pantoprazole, esomeprazole)) may help to heal the irritation of the oesophagus caused by the acid and relieve symptoms. This therapy needs to be discussed with your doctor or the gastroenterologist. Most patients (eight in 10) can be managed through lifestyle changes and drug therapy**. However, medical treatment addresses the effect but not the cause.**

3. **Surgery**
   A minority of patients who do not respond well to the lifestyle changes, drug therapy, or who continually need medications to control their condition, may benefit from surgery. Surgery works well in treating GORD. However, until recently this operation needed a large abdominal incision (cut) resulting in a lot of pain after surgery and a recovery period of six weeks or more. This surgery has now been updated using keyhole techniques that avoid large abdominal incisions, so recovery is quicker with less pain and discomfort. **Surgery addresses the cause and, as a result, treats the effect of the disease as well.**

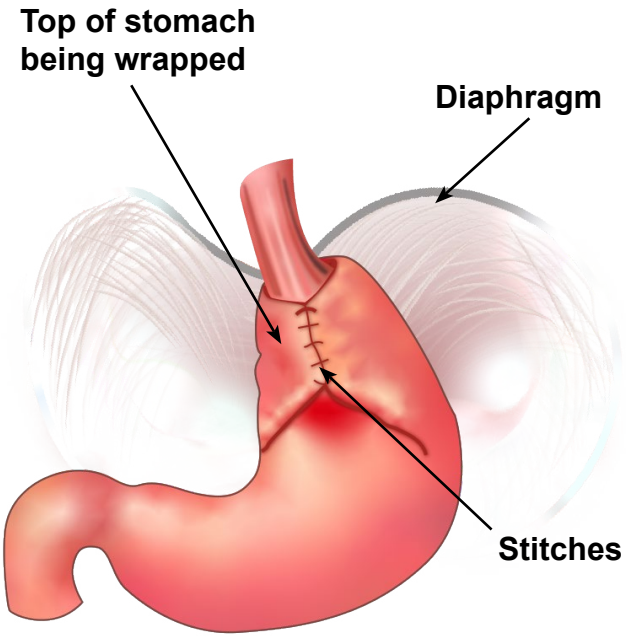
How is laparoscopic anti-reflux surgery performed?

Laparoscopic surgery means keyhole surgery.

The whole operation is performed “inside” with special instruments, after pumping in carbon dioxide gas that expands your abdomen. We use two 10mm and two 5mm incisions to enter your abdomen through ports (narrow tube like instruments). The laparoscope, which is attached to a tiny video camera, is inserted through these tubes giving your surgeon a magnified view of your internal organs on a television screen.

Laparoscopic anti-reflux surgery involves:

- recreating the abdominal length of the oesophagus (gullet)
- repairing the hiatus hernia (weakness in the partition wall between the chest and the abdomen) with stitches; and
- reinforcing the “valve” between the oesophagus and the stomach by wrapping the upper portion of your stomach around the lowest portion of your oesophagus. This is best described as ‘cuddling’ the gullet with the stomach (see diagram).



What are the expected results after laparoscopic anti-reflux surgery?

Studies have shown that most patients who have this procedure are either symptom free or have significant improvement in their GORD symptoms. The advantages of the laparoscopic approach are that it usually provides:

- reduced pain after your surgery
- a shorter hospital stay (one to two days)
- a faster return to work (one month); and
- improved cosmetic result (small scars).

What are the risks of laparoscopic anti-reflux surgery?

There are risks with any general anaesthetic procedure, but life-threatening complications are rare. Rare complications during the operation may include the following.

- A bad reaction to the general anaesthetic.
- Bleeding.
- Injury to the oesophagus, spleen, stomach, pleura (lining of the lung), liver, and lungs.
- Injury to vagus nerve, resulting in poor gastric function which may need further surgical widening of the gastric outlet.

Complications after the operation may include the following.

- Infection of the wound, abdomen, chest, or blood.
- Rare complications include deep vein thrombosis (DVT), which are clots in the leg veins that can spread to the lung, and cause difficulties with breathing.

Your surgeon and their team will review you regularly after surgery and take steps to minimise these risks (for example give you prophylactic antibiotics and blood thinning injections). Also you will be asked to wear special stockings to prevent leg vein clots, receive chest physiotherapy, and wound care.

What happens if my operation cannot be performed using the laparoscopic method?

For one in 25 patients, the laparoscopic method is not possible or safe because the surgeon is not able to see or handle the organs effectively. When a surgeon feels that it is safest to change the laparoscopic procedure to an open procedure, this is not a complication; it is a sound clinical judgement.

Factors that may increase the possibility of converting to the “open” procedure may include obesity, a history of previous abdominal surgery causing dense scar tissue, a very large left lobe of the liver, or bleeding problems during the operation.

What should I expect before laparoscopic anti-reflux surgery?

To determine if you are a candidate for laparoscopic anti-reflux surgery, a thorough medical evaluation by your specialist is necessary. Some tests such as x-rays, barium studies, pH and manometry study (measuring the pressure and acid level in the gullet by using a fine tube through the nose down to the gullet), endoscopy (telescope test through the mouth looking at the gullet and stomach), and blood tests may be necessary. Your surgeon will then be able to discuss with you whether or not this operation may help you.

They will also help you decide between the risks and benefits of laparoscopic anti-reflux surgery or leaving the condition to be treated medically.

Before surgery, your surgeon will see you again and provide you with more information before asking you to sign your consent form. Remember you can withdraw your consent for treatment at any time.

Are there any side effects to this operation?

Long-term side effects to this procedure are generally uncommon (less than one in 25 patients).

- Some patients develop temporary difficulty in swallowing immediately after their operation. This usually resolves within one to three months following surgery. A sloppy diet may be needed during this time.

- Patients could also suffer weight loss, even up to a stone. Occasionally, these patients may need a simple procedure (endoscopic dilation) to expand their oesophagus. Rarely surgery will need to be repeated (less than one in 100 patients).

- The ability to belch and/or vomit may be limited following this procedure.

- Some patients complain of stomach bloating. It is best to avoid fizzy drinks (for life).

- All patients will pass more wind from their tail end (flatulence).

- Rarely, some patients report very little improvement in their symptoms (less than one in 20). Unfortunately, every operation also has a failure rate and one in 10 to 20 patients will have recurrence of their symptoms in five years.

  The diaphragm is an extremely dynamic area, moving on an average 20 to 30,000 times per day. The stitches that are used are permanent, however, the muscles can still stretch which is the reason symptoms can recur in a small number of cases. If the symptoms do recur, they can be addressed medically or surgically once again. You can discuss this with your surgeon.

This leaflet has been produced with and for patients

If you would like this information in **another language, audio, Braille, Easy Read, or large print** please ask a member of staff. You can ask someone to contact us on your behalf.

Any complaints, comments, concerns, or compliments please speak to your doctor or nurse, or contact the Patient Advice and Liaison Service (PALS) on 01227 78 31 45, or email ekh-tr.pals@nhs.net

Patients should not bring in large sums of money or valuables into hospital. Please note that East Kent Hospitals accepts no responsibility for the loss or damage to personal property, unless the property had been handed in to Trust staff for safe-keeping.

Further patient leaflets are available via the East Kent Hospitals web site www.ekhuft.nhs.uk/patientinformation

Information produced by the Surgery and Anaesthetics Care Group
Date reviewed: June 2021 (version 2) Next review date: October 2024 EKH958