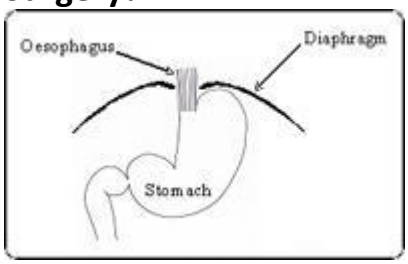
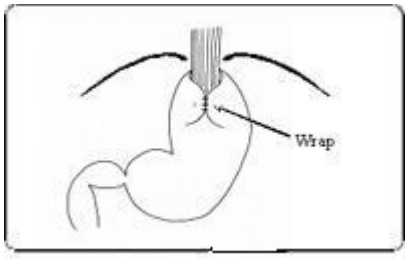
Laparoscopic Antireflux Surgery

What is Laparoscopic Anti-reflux Surgery?





An anti-reflux operation (also known as fundoplication) is a surgical method of treating gastro-oesophageal reflux disease.
Reflux disease is the result of stomach contents passing back up into the oesophagus (gullet). This often causes pain (heartburn) and sometimes inflammation (oesophagitis).

Various types of operation may be performed and there are a number of common components.

Reduction of hiatal hernia

Some patients will have a hiatal hernia, meaning that the upper part of the stomach has slipped up into the chest through a weak area in the diaphragm (hiatus). If there is a hiatal hernia, it will be corrected by bringing the stomach back into the abdomen

Repair of the hiatus

The hiatus is repaired to prevent any re-herniation of the stomach. Often this is done with stitches alone but sometimes a mesh may be recommended.

Fundoplication

Fundoplication entails wrapping the upper part of the stomach (fundus) around the abdominal part of the oesophagus. A fundoplication (wrap) may be partial or complete and is a standard part of antireflux surgery (see diagram). The fundoplication increases the pressure at the lower end of the oesophagus producing a kind of one-way valve which reduces the chance of reflux from the stomach.

Gastropexy

Gastropexy entails fixing the stomach to the abdominal wall with stitches. It is only necessary in patients who have a very large hiatal hernia. In such patients a gastropexy may help to reduce the likelihood of a recurrent hiatal hernia.

Your surgeon will advise you of the specific operation which is recommended to you.

If the operation is being carried out for the first time, it is nearly always achieved using keyhole techniques (laparoscopic surgery). Compared to open surgery, which involves a larger incision, the laparoscopic method leads to a speedier recovery and less post-operative

pain.

The operation usually takes between 1 and 1½ hours.

Who needs Anti-reflux Surgery?

The vast majority of patients with reflux disease respond well to appropriate acid suppressing drugs and do not need surgery. However, for a small group of patients surgery can be helpful. There are three main reasons why patients wish to have surgery:

1. Failure to respond satisfactorily to adequate doses of medication
2. Intolerable side effects from medication
3. A desire to be free of long-term medication

The majority of patients undergo anti-reflux surgery as a life-style operation, rather than because their health is at risk. It is important to consider the risks and benefits of surgery very carefully.

Are there any complications of antireflux surgery?

Like all surgery there are risks. Some relate to the anaesthetic, others are general complications that can happen after any operation, as well as specific problems unique to anti-reflux surgery.

Providing you are fit, the anaesthetic should not pose a problem, but this should be discussed with your anaesthetist.

General complications include:

•Bleeding or bruising associated with the skin incisions.
•Infection in the skin incisions can occur during the recovery period.
This occasionally requires antibiotic treatment.

There is a small risk of a clot forming in the leg veins (Deep Venous Thrombosis or DVT) associated with any form of abdominal surgery. This is the same type of clot that passengers on long aeroplane flights may develop. A DVT may cause the leg to swell and occasionally the clot may break loose and lodge in the lung (Pulmonary embolism or PE). Overall the risk of a DVT or PE is small and we will take active measures to minimise this risk to you.

A DVT is more likely if you are overweight or smoke. You can reduce the risk of developing a DVT by getting up and walking about as soon as possible after your operation.
A DVT may only be obvious after you have gone home. If you notice any swelling of the calf or more rarely the thigh, or you experience pain or tenderness in the calf, or notice that your leg is shiny or discoloured you should seek medical advice quickly. You should also contact a doctor immediately if you develop shortness of breath or pain on breathing following surgery.

Complications specific to antireflux surgery

•Damage to the oesophagus, stomach or lung lining, sometimes necessitating a further laparoscopic procedure, chest drain, or an open operation. These problems are rare but are potentially serious and can require prolonged hospitalisation to resolve.

•Bleeding, which may require a further laparoscopic or open operation. Such bleeding is sometimes associated with damage to the spleen and necessitates removal of that organ. This is more common with an open operation, but occurs less frequently with laparoscopic surgery.

•In some circumstances, conversion to open surgery may be necessary. Most studies suggest these risks are less than 1%.

Severe complications may result in death (risk 1 in 1000).

Dysphagia

Many patients have temporary difficulty in swallowing (dysphagia) after surgery. This is because the oesophagus tends to be rather inactive for a week or two. Additionally, there is some swelling in the area of fundoplication. This means you will need to take only soft and moist foods for a few days until you fully recover from your operation.

The vast majority of patients eventually swallow normally after anti-reflux surgery. A small number find that very lumpy foods may tend to stick in the lower oesophagus and cause discomfort. This need not be a significant problem since it may just be a matter of avoiding large chunks of food and making sure that mouthfuls are thoroughly chewed before swallowing.

Increased flatulence and bloating

Everyone swallows air during breathing and talking and this air has to go somewhere. It either leaves the body through belching, or through the bowel as flatulence. A successful antireflux operation will not only stop reflux, but also belching. Hence patients will often notice that they pass more wind through the bowel after a successful operation. This is normal.

In a small number of patients, the wind becomes trapped in the stomach causing an uncomfortable sensation of bloating (gas bloat).

It is advisable to avoid gassy drinks for at least eight weeks after your operation and you should avoid drinking large volumes of such drinks at any time.

Revision surgery

A successful antireflux operation requires considerable judgement on behalf of the surgeon. The procedure must be sufficient to control reflux without causing dysphagia or gas bloat.

The majority of patients notice an immediate improvement in their symptoms but a minority (5%) will require an early re-look op (revision) to fine-tune the procedure.

Patients who have persistent dysphagia or gas bloat may regret having their operation and, in some instances, later revision surgery may be required.

Early revision procedures are usually straightforward and safe. A late revision operation is technically challenging and not without risk.

Other changes in eating habit

It is not unusual to feel full after meals, sometimes after a just a few bites. This is because the shape of the stomach has been changed.

Patients are advised to eat and drink several small meals throughout the day to avoid overfilling their stomach whilst maintaining adequate food intake. Many patients lose weight during this time. Over time the stomach adjusts to accommodate a normal meal.

Some patients experience a feeling of indigestion after surgery and are advised to continue taking medications to reduce stomach acid for a few weeks after surgery.

Are there any alternatives?

Anti-reflux surgery is the only proven treatment that can correct the anatomical abnormalities that lead to reflux. Alternatives

to surgery include:

- Life style changes such as losing weight, avoiding foods that contribute to acid reflux and stopping smoking.

• Continuing medication, but regularly for the rest of your life.

•Endoscopic techniques which involve narrowing the junction between the oesophagus and stomach. Currently these techniques are relatively untested and have limited availabilty and some are performed as part of research trials.

What happens before the operation?

Prior to admission you will need to have a pre-operative assessment. This is an assessment of your health to make sure you are fully prepared for your admission, treatment and discharge. The pre-operative assessment nurses are there to help you with any worries or concerns that you have, and can give you advice on any preparation needed for your surgery.
Before the date of your admission, please read very closely the instructions given to you.
If you are undergoing a general anaesthetic you will be given specific instructions about when to stop eating and drinking. Please follow these carefully as otherwise this may pose an anaesthetic risk and we may have to cancel your surgery.

You should bath or shower before coming to hospital.

How long does it take to fully recover after anti-reflux surgery?

Most patients do not have significant pain after laparoscopic surgery, rather just mild abdominal and chest discomfort. Many patients do experience some degree of discomfort in their shoulders after the procedure. This is referred pain from the diaphragm where stitches have been placed as part of the operation. Such discomfort and soreness tends to disappear over 24-48 hours.
As the surgery has been performed laparoscopically, most people are able to return home after an overnight stay in hospital.
To minimise any discomfort you should take painkillers regularly over the first few days (as instructed on your prescription).
You will also be advised to avoid heavy lifting for at least 4 weeks.

You can return to work as soon as you feel well enough otherwise but this will depend on the type of work you do. Typically you will need two to three weeks off work.

You should not drive for at least 7–10 days after surgery. Before driving you should ensure that you can perform a full emergency stop, have the strength and capability to control the car and be able to respond quickly to any situation that may occur. Please be aware that driving whilst unfit may invalidate your insurance.

Summary

These are the key points to consider:

Why might someone have anti-reflux surgery?

•Failure to fully control reflux symptoms with adequate doses of medication
•Side effects of medication (itchy skin, joint pains, diarrhoea and bloating)
•Desire to be free of long term medication

What are the potential side effects?

•Difficulty swallowing
•Bloating and flatulence
•Feeling full
•Weight loss
•Small risk of severe complications

Does it work?

In properly selected patients, surgery improved or eliminated heartburn and regurgitation in more than 90% of patients.

However, a proportion of patients will find that, after a technically successful operation, their reflux returns over a number of years, to the extent that they will need to take medication again.

Re-operation (revision) for reflux is possible, but late revision is technically challenging and not without risk. As with many types of surgery, the success rates after revision are less than that at the original operation.

Are patients satisfied?

Most patients are satisfied with the results of surgery. Follow-up indicates that 10 years after surgery, 80-85% of patients continue to experience relief from symptoms.

A number of studies have asked surgical patients if "they would do it all over again?" 85-90% said they would.

A small number of patients will regret having had the operation because their symptoms are not controlled or because they have residual swallowing or bloating symptoms.

When should I seek help?

- If you develop a fever above 38C or chills.
- Persistent vomiting or nausea.
- Increasing abdominal pain or distension.
- Increasing pain, redness, swelling or discharge of any of the wound sites.
- Severe bleeding.
- Difficulties in passing urine

Where should I seek advice or help?

If you are unwell or develop any of the symptoms above please contact your GP or 111. If you are not unwell but do wish to discuss a problem please contact your surgeons secretary via switch board and they will arrange for you to be seen in clinic.

Conclusion

This booklet addresses some of the issues related to anti-reflux surgery.
Your surgeon will always discuss these in more detail before your operation and give you an opportunity to ask questions.

What can I eat after surgery?

The following dietary advice can help to minimise the symptoms (which include difficulty swallowing, bloating flatulence and pain after eating).

<u>Stage 1: Clear Fluids</u>
Four hours after surgery and for the first 3 days you should:

- Drink clear fluids (for example water, clear juices, squash, smooth soups, jelly, ice cream, decaffeinated tea and coffee).
- Avoid very hot or very cold fluids / foods.
- Drink slowly.
- Allow foods to melt in the mouth before swallowing.
- Avoid alcohol and citrus fruit juices.
- Avoid carbonated (fizzy) drinks for 6 weeks.

<u>Stage 2: Pureed Diet</u>
You can start on a pureed diet (where foods are a smooth, uniform consistency and no chewing is required) 3 days after surgery for the first seven days. If you have any problems with eating these foods drop back to Stage 1.

You should:

- Eat your meals slowly.
- Stop eating when you feel full.
- Take 4 - 5 small meals daily.
- Limit foods which may cause gas or irritation (e.g. tomato products, onions, beans, caffeine, alcohol, highly spiced foods, fatty foods).
- Continue to eat a varied healthy balanced diet.

Stage 3: Soft Diet

You can move from a pureed diet to a soft diet (where foods are soft and moist can be broken into small pieces with a fork and require minimal chewing) 1 week after surgery for the next 3 weeks.

You should:

- Avoid any foods that cause symptoms and reintroduce them at a later date.
- Go back to Stage 2 if you experience symptoms such as bloating or difficulty swallowing.
- Eat your meals slowly.
- Stop eating when you feel full.
- Take 4 - 5 small meals daily.
- Limit foods which may cause gas or irritation (e.g. tomato products, onions, beans, caffeine, alcohol, highly spiced foods, fatty foods).

Stage 4: Transition to your normal diet.

Between 4 – 6 weeks after surgery you can gradually make the transition to your normal diet. You should:

- Avoid any foods that cause symptom and reintroduce them at a later date.
- Go back to Stage 3 if you experience symptoms such as bloating or difficulty swallowing.
- Eat your meals slowly.
- Drink fluids with meals to keep your food moist.

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