Laparoscopic Antireflux Surgery Information Sheet

What is Laparoscopic Antireflux Surgery?

Antireflux surgery (also known as fundoplication) is the standard surgical method of treating gastro-oesophageal reflux disease.

Reflux disease is the result of acid refluxing from the stomach back up into the oesophagus. This causes inflammation and pain (heartburn).

Normally, there is a barrier to acid reflux. Part of this barrier is the lower-most muscle of the oesophagus (called the lower oesophageal sphincter). Most of the time, this muscle is contracted, which closes off the oesophagus from the stomach.

In patients with reflux disease, the sphincter does not function normally. The muscle is either weak or relaxes inappropriately.

Fundoplication is a surgical technique that strengthens the barrier to acid reflux when the sphincter does not function normally.

Who needs Antireflux Surgery?

The vast majority of patients with reflux disease responds 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 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

What does the surgery involve?

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.

Most patients have a hiatus hernia associated with their reflux disease and repair of this hernia is undertaken at the same time as anti-reflux surgery. The hernia sac is pulled down from the chest and stitched so that it

remains within the abdomen. Additionally the opening in the diaphragm, through which the oesophagus passes from the chest into the abdomen, is tightened.

During the procedure the part of the stomach that is closest to the entry of the oesophagus (the fundus of the stomach) is gathered, wrapped and stitched around the lower end of the oesophagus.

This procedure increases the pressure at the lower end of the oesophagus and thereby reduces acid reflux. This wrap (or fundoplication) produces a kind of one-way valve from the oesophagus to the stomach. It is because the operation prevents reflux from the stomach into the oesophagus that we call the procedure 'antireflux surgery'.

The operation usually takes between 1 and 1½ hours.

Are there any complications?

Like all surgery there are some risks. These relate to the anaesthetic, others relate to general complications that can happen after any operation, as well as specific problems unique to antireflux surgery.

Providing you are fit, the anaesthetic should not pose a problem, but this should be discussed 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.
- Deep vein thrombosis and pulmonary embolism. This can occur after prolonged periods of immobility. It is more common in patients that are overweight and/or smoke. Early mobilisation as well as hydration and compression stockings minimise this risk.

Complications specific to antireflux surgery, but which occur extremely rarely:

- Damage to the oesophagus, stomach or lung lining, leading to leakage from this area and sometimes necessitating a further laparoscopic procedure, chest drain, or an open operation, to address the problem. These problems can require prolonged hospitalisation to resolve.
- Bleeding, possibly requiring a further laparoscopic procedure or open operation. Such bleeding is sometimes associated with the spleen and necessitates removal of that organ. This used to be much commoner in

the period of open surgery, but occurs very infrequently since laparoscopic surgery was introduced.

- In some circumstances, conversion to open surgery is safer. Most studies suggest these risks are less than 1%.

Very rarely severe complications may result in death. However, the risk of serious complication is very small (less than 1 in 1000).

Are there any side effects?

Almost all patients have **difficulty swallowing** after surgery. This is due to the fact that 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 see what degree of difficulty you have.

Occasionally you may swallow a large lump of food, which becomes stuck in the lower oesophagus. Whilst this can cause acute discomfort, it does not place you in any danger. The food will either eventually move through or you will bring it back up. Although this can be irritating it does not put you or your operation in any danger.

The vast majority of patients eventually swallow normally after antireflux surgery. A small number of patients find that very lumpy foods tend to stick in the lower oesophagus when swallowing which then causes discomfort. This need not be a problem for patients since it is just a matter of avoiding eating large lumps of food and making sure that food is thoroughly chewed before it is swallowed.

Abdominal bloating and flatulence, caused by increased air in the gut, may occur. Because the operation produces a one-way valve, any air or gas that is swallowed cannot be easily belched back. (You will be able to produce small belches from air in your oesophagus above the valve). For this reason you should avoid gassy drinks for at least eight weeks after your operation and you should avoid drinking large volumes of such drinks at any time.

Any air in your stomach has to move through your gastrointestinal tract, so many people are aware of increased flatulence after the operation and pass more wind. This problem tends to get better with time, but some degree of increased passage of wind often remains.

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.

Another common postoperative occurrence is **feeling full** very quickly during meals, sometimes just after a few bites. This is because the stomach has been made smaller. Patients are advised to eat and drink

several small meals throughout the day to avoid overtaxing the digestive tract and to make sure they are getting adequate nutrition.

Many patients **lose weight** during this time, however many patients will see this as a bonus. Over time the stomach adjusts to accommodate a normal meal.

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.

Are there any alternatives?

Antireflux surgery is the only treatment that can correct the anatomical abnormalities that lead to reflux. Surgery is generally recommended when other treatments have not been satisfactory. These include:

- Acid suppressing drugs (such as Omeprazole or Lansoprazole) to reduce acid reflux (these work by reducing or neutralizing the acid in the stomach or making the stomach empty faster). However, to control your symptoms these may need to be taken regularly for the rest of your life.
- Endoscopic techniques. These involve altering the oesophageal opening into the stomach through an endoscope. Currently these techniques are experimental and only performed as part of research trials.
- Life style changes such as losing weight, avoiding foods that contribute to acid reflux and stopping smoking.

How long dose it take to fully recover after antireflux surgery?

Most patients do not have pain as such after laparoscopic surgery, rather just some 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, many people are able to return home later the same day, providing the are fully recovered from anaesthesia and have appropriate support at home. Otherwise, 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)

Because of the lack of any wound pain, by the time you go home you may well think you are able to act as though you have not had an operation. Nevertheless, you will find that you get tired easily and you may even

wish to have a sleep in the afternoon, for a few days. We also ask the patients to avoid heavy lifting for at least 2-3 weeks.

You can return to work as soon as you feel well enough. This will depend on how you are feeling and the type of work that 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 should someone have antireflux 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 complications

Does it work?

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

Are patients satisfied?

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

Conclusion

This booklet addresses some of the issues related to antireflux 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?

Stage 1: Clear Liquid Diet

Start immediately after surgery. Later drop back to Stage 1 if you have problems with Stage 2.

- Small meals of clear liquids 3-4 times daily
- Avoids very hot or very cold food
- Drink slowly
- Allow cold foods to melt in the mouth
- No carbonated drinks for 3-4 weeks

Stage 2: Soft Diet

Start day after surgery. Continue at this stage for 3 days after surgery or as tolerated

- Soft foods (you could eat if you didn't have any teeth).
- Eat slowly over 1-hour periods, until you feel full
- Chew your food well
- Drink fluids with food to keep food moist
- Limit the following "gas forming / irritating" foods. Tomato products, peppermint, black pepper, caffeine, alcohol, onions, green peppers, "gum chewing", fatty foods, beans, raw vegetables, fibre supplements.
- Avoid breads, crackers, biscuits, pancakes and toast.
- No carbonated drinks.

Stage 3: Transition to regular diet

Start about 3 days after surgery.

- Soft diet as above.
- Introduce more challenging foods one at a time.
- If they cause symptoms, avoid them and reintroduce them at a later date.
- Drop back to Stage 2 as needed for bloating or difficulty swallowing.
- No carbonated drinks for 3-4 weeks.

Stage 4: Regular diet

Start 3 to 6 weeks after surgery

When should I seek help after my operation?

- If you notice large amounts of blood or pus coming from your wounds.
- If you develop a fever above 101° F (38.5 ° C) or chills.
- Nausea, vomiting or severe pain.
- Severe difficulty in swallowing.
- Severe abdominal distension (bloating of your tummy).
- Increasing pain, redness or swelling around your wounds.

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