Acid Reflux and Oesophagitis (Heartburn)

When acid from the stomach leaks up into the gullet (oesophagus), the condition is known as acid reflux. This may cause heartburn and other symptoms. A medicine which reduces the amount of acid made in your stomach is a common treatment and usually works well. Some people take short courses of medication when symptoms flare up. Some people need long-term daily medication to keep symptoms away.

Understanding the oesophagus and stomach

When we eat, food passes down the gullet (oesophagus) into the stomach. Cells in the lining of the stomach make acid and other chemicals which help to digest food. Stomach cells also make mucus which protects them from damage from the acid. The cells lining the oesophagus are different and have little protection from acid.

There is a circular band of muscle (a sphincter) at the junction between the oesophagus and stomach. This relaxes to allow food down but then normally tightens up and stops food and acid leaking up (refluxing) into the oesophagus. In effect, the sphincter acts like a valve.

What are reflux and oesophagitis?

- **Acid reflux** means that some acid leaks up (refluxes) into the gullet (oesophagus).
- **Oesophagitis** means inflammation of the lining of the oesophagus. Most cases of oesophagitis are due to reflux of stomach acid which irritates the inside lining of the oesophagus.

The lining of the oesophagus can cope with a certain amount of acid. However, it is more sensitive to acid in some people. Therefore, some people develop symptoms with only a small amount of reflux. However, some people have a lot of reflux without developing oesophagitis or symptoms.

**Gastro-oesophageal reflux disease (GORD)**

This is a general term which describes the range of situations - acid reflux, with or without oesophagitis and symptoms.

What are the symptoms of acid reflux and oesophagitis?

- **Heartburn**: this is the main symptom. This is a burning feeling which rises from the upper tummy (abdomen) or lower chest up towards the neck. (It is confusing, as it has nothing to do with the heart!)
- **Other common symptoms**: these include pain in the upper abdomen and chest, feeling sick, an acid taste in the mouth, bloating, belching, indigestion (dyspepsia) and a burning pain when you swallow hot drinks. Like heartburn, these symptoms tend to come and go and tend to be worse after a meal.
What causes acid reflux and whom does it affect?

The circular band of muscle (sphincter) at the bottom of the gullet (oesophagus) normally prevents acid leaking up (reflux). Problems occur if the sphincter does not work very well. This is common but in most cases it is not known why it does not work so well. In some cases the pressure in the stomach rises higher than the sphincter can withstand - for example, during pregnancy, after a large meal, or when bending forward. If you have a hiatus hernia (a condition where part of the stomach protrudes into the chest through the diaphragm), you have an increased chance of developing reflux. See separate leaflet called Hiatus Hernia for more details.

Most people have heartburn at some time, perhaps after a large meal. However, about 1 adult in 3 has some heartburn every few days, and nearly 1 adult in 10 has heartburn at least once a day. In many cases it is mild and soon passes. However, it is quite common for symptoms to be frequent or severe enough to affect quality of life. Regular heartburn is more common in smokers, pregnant women, heavy drinkers, those who are overweight and those aged between 35 and 64 years.

What tests might be done?

Tests are not usually necessary if you have typical symptoms. Many people experiencing acid leaking up (refluxing) into the gullet (oesophagus) are diagnosed with 'presumed acid reflux'. In this situation they have typical symptoms and the symptoms are eased by treatment. Tests may be advised if symptoms are severe, or do not improve with treatment, or are not typical of GORD.

- **Gastroscopy (endoscopy)** is the common test. A thin, flexible telescope is passed down the oesophagus into the stomach. This allows a doctor or nurse to look inside. With inflammation of the lining of the oesophagus (oesophagitis), the lower part of the oesophagus looks red and inflamed. However, if it looks normal it does not rule out acid reflux. Some people are very sensitive to small amounts of acid and can have symptoms with little or no inflammation to see. Two terms that are often used after an endoscopy are:
  - Oesophagitis. This term is used when the oesophagus can be seen to be inflamed.
  - Endoscopy-negative reflux disease. This term is used when someone has typical symptoms of reflux but endoscopy is normal.

- A test to check the acidity inside the oesophagus may be done if the diagnosis is not clear.
- Other tests such as heart tracings, chest X-ray, etc, may be done to rule out other conditions if the symptoms are not typical.

What can I do to help with symptoms?

The following are commonly advised. However, there has been little research to prove how well these lifestyle changes help to ease reflux:

- **Smoking.** The chemicals from cigarettes relax the circular band of muscle (sphincter) at the bottom of the gullet (oesophagus) and make acid leaking up (refluxing) more likely. Symptoms may ease if you are a smoker and stop smoking.
- **Some foods and drinks** may make reflux worse in some people. It is thought that some foods may relax the sphincter and allow more acid to reflux. It is difficult to be certain how much foods contribute. Let common sense be your guide. If it seems that a food is causing symptoms then try avoiding it for a while to see if symptoms improve. Foods and drinks that have been suspected of making symptoms worse in some people include peppermint, tomatoes, chocolate, spicy foods, hot drinks, coffee and alcoholic drinks. Also, avoiding large-volume meals may help. See the separate leaflet called Oesophageal reflux diet sheet for more details.
- **Some medicines** may make symptoms worse. They may irritate the oesophagus or relax the sphincter muscle and make acid reflux more likely. The most common culprits are anti-inflammatory painkillers (such as ibuprofen or aspirin). Others include diazepam, theophylline, calcium-channel blockers (such as nifedipine) and nitrates. But this is not a complete (exhaustive) list. Tell a doctor if you suspect that a medicine is causing the symptoms, or making symptoms worse.
- **Weight.** If you are overweight it puts extra pressure on the stomach and encourages acid reflux. Losing some weight may ease the symptoms.
- **Posture.** Lying down or bending forward a lot during the day encourages reflux. Sitting hunched or wearing tight belts may put extra pressure on the stomach, which may make any reflux worse.
- **Bedtime.** If symptoms recur most nights, the following may help:
  - Go to bed with an empty, dry stomach. To do this, don't eat in the last three hours before bedtime and don't drink in the last two hours before bedtime.
  - If you are able, try raising the head of the bed by 10-20 cm (for example, with books or bricks under the bed's legs). This helps gravity to keep acid from refluxing into the oesophagus. If you do this, do not use additional pillows, because this may increase tummy (abdominal) pressure.

What are the treatments for acid reflux and oesophagitis?

**Antacids**
**Antacids** are alkaline liquids or tablets that reduce the amount of acid. A dose usually gives quick relief. There are many brands which you can buy. You can also obtain some on prescription. You can use antacids ‘as required’ for mild or infrequent bouts of heartburn.

**Acid-suppressing medicines**
If you have symptoms frequently then see a doctor. An acid-suppressing medicine will usually be advised. Two groups of acid-suppressing medicines are available - proton pump inhibitors (PPIs) and histamine receptor blockers (H2 blockers). They work in different ways but both reduce (suppress) the amount of acid that the stomach makes. PPIs include omeprazole, lansoprazole, pantoprazole, rabeprazole and esomeprazole. H2 blockers include cimetidine, famotidine, nizatidine and ranitidine.

In general, a PPI is used first, as these medicines tend to work better than H2 blockers. A common initial plan is to take a full-dose course of a PPI for a month or so. This often settles symptoms down and allows any inflammation in the gullet (oesophagus) to clear. After this, all that you may need is to go back to antacids ‘as required’ or to take a short course of an acid-suppressing medicine ‘as required’.

However, some people need long-term daily acid-suppressing treatment. Without medication, their symptoms return quickly. Long-term treatment with an acid-suppressing medicine is thought to be safe and side-effects are uncommon. The aim is to take a full-dose course for a month or so to settle symptoms. After this, it is common to ‘step down’ the dose to the lowest dose that prevents symptoms. However, the maximum full dose taken each day is needed by some people.

**Editor’s Note**

**November 2017** - Dr Hayley Willacy has been reading recent reports concerning long-term use of PPI medicines and an increased risk of gastric (stomach) cancer - see Further reading below. Researchers studied over 60,000 people who took PPIs on a long-term basis. They were twice as likely to be diagnosed with stomach cancer in the 7 to 8 years of follow-up. The study was not designed to tell if PPIs were the cause of the increased cancer risk and it may have been down to other factors. For instance, the people studied were of Asian origin and they are known to have a higher risk of stomach cancer than Western populations. The amount of alcohol or how much these people smoked are also key factors and unfortunately, this was not looked at reliably in the study. It is also important to keep the results in proportion. Long-term use of PPIs was linked to around 4 additional stomach cancers cases per 10,000 people per year. The overall risk is still very low.

**Prokinetic medicines**

Metoclopramide, a prokinetic medicine, speeds up the passage of food through the stomach. It is not commonly used but can help in some cases, particularly if you have marked bloating or belching symptoms.

**Surgery**

An operation can ‘tighten’ the lower oesophagus to prevent acid leaking up from the stomach. It can be done by ‘keyhole’ surgery. In general, the success of surgery is no better than acid-suppressing medication. However, surgery may be an option for some people whose quality of life remains significantly affected by their condition and where treatment with medicines is not working well or not wanted long-term.

Another procedure being used involves placing a small magnetic device around the lower oesophagus. The device allows you to swallow but then tightens to stop acid reflux. Because there is not much research into this procedure, it is not often used in the UK at the moment.
Are there any complications from oesophagitis?

- **Scarring and narrowing (stricture).** If you have severe and long-standing inflammation it can cause a stricture of the lower gullet (oesophagus). This is uncommon.
- **Barrett's oesophagus.** In this condition the cells that line the lower oesophagus become changed. The changed cells are more prone than usual to becoming cancerous. (About 1 or 2 people in 100 with Barrett's oesophagus develop cancer of the oesophagus.)
- **Cancer.** Your risk of developing cancer of the oesophagus is slightly increased compared to the normal risk if you have long-term acid reflux.

It has to be stressed that most people with reflux do not develop any of these complications. Tell your doctor if you have pain or difficulty (food 'sticking') when you swallow, which may be the first symptom of a complication.

**Further reading & references**

- Laparoscopic insertion of a magnetic bead band for gastro-oesophageal reflux disease; NICE Interventional Procedure Guidance, September 2012
- Dyspepsia and gastrooesophageal reflux disease: Investigation and management of dyspepsia - symptoms suggestive of gastroparesis gastroesophageal reflux disease - or both; NICE Clinical Guideline (Sept 2014)

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