

Barrett's oesophagus: information for patients

The oesophagus (“food pipe”) is a muscular tube between your throat and stomach. When you swallow food, the oesophagus helps move food through the lower oesophageal sphincter (valve), into your stomach. Sometimes the sphincter does not close properly. When this occurs, the stomach acid splashes up into the oesophagus, causing reflux. This causes the typical feeling of a burning pain in the chest which may rise up and spread to the throat.

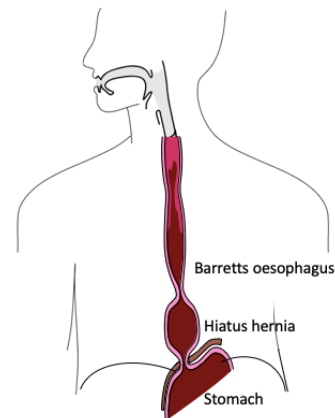
Symptoms of acid reflux include:

- Heartburn - burning pain in the chest which may move up to the throat
- A sour taste in the back of the mouth
- Food coming back up into the mouth after eating (regurgitation)
- Swallowing difficulty that can be painful
- Hoarse voice
- Rarely persistent cough or wheeze

What is Barrett's Oesophagus?

Barrett's Oesophagus – often known just as Barrett's – is a condition that affects some people who have had severe heartburn, or reflux of acid and bile, for a long time. The acid and bile from the stomach and intestine can cause inflammation to the cells lining the oesophagus. If this happens over many years, these cells may start to change. Barrett's Oesophagus is found in about 2% of adult population and in 5% of persons with gastro-oesophageal reflux disease. People particularly at risk are:

- Long standing acid reflux symptoms
- White men
- Age >50 years
- Obese
- Smoker
- Excessive alcohol intake
- Family history



Why is it called Barrett's Oesophagus?

The condition is named after Dr Norman Rupert Barrett (1903- 1979) who was a surgeon at St Thomas' and Brompton Hospitals in London. In 1950, he first described the transformation of the oesophageal lining due to acid damage that was published in the British journal of Surgery – the condition that bears his name.

How is Barrett's Oesophagus diagnosed?

Barrett's Oesophagus is diagnosed when you have an endoscopy procedure. The doctor performing your endoscopy is able to see and assess the changes in your oesophagus due to acid reflux. Small tissue samples can be taken using a forceps inserted via the endoscope. These samples are sent to the laboratory to be checked under a microscope by a specialist to confirm the diagnosis and assess the severity of the condition.

Why is Barrett's Oesophagus important?

A person with Barrett's oesophagus is at risk of developing oesophageal cancer. However, this is a rare occurrence. Only between 3 and 5 people in every 100 with Barrett's Oesophagus (3 - 5%) may develop oesophageal cancer during their lifetime.

Cells in Barrett's oesophagus that begin to show abnormal changes may be developing a condition called dysplasia (or pre-cancer) which occurs long before cancer develops. Dysplasia can be classified as low-grade or high-grade, depending on how abnormal the cells are. High-grade is the most abnormal, means that the cells are at the most risk of becoming cancerous and requires immediate attention and treatment.

If these pre-cancerous changes are undetected then the cancer can develop over time. If cancer remains undetected then it can spread and invade surrounding tissues. That is why people with Barrett's Oesophagus are urged to have regular endoscopy and biopsy samples taken to monitor for adverse changes.

How is Barrett's Oesophagus treated?

Treatment is aimed at controlling reflux, managing symptoms and preventing complications.

General lifestyle changes:

Lifestyle changes may help the reflux symptoms, but there is no evidence that they can reduce the size or get rid of Barrett's oesophagus. These lifestyle changes include:

- Losing weight if overweight
- Stopping smoking
- Avoiding excessive alcohol intake
- Avoiding foods that aggravate symptoms e.g. fatty food
- Eating smaller meals at regular intervals rather than a single big meal

Medical treatment:

Patients with Barrett's oesophagus would be treated with medicines to reduce the stomach acid, thereby reducing the acid reflux. These medicines are called proton pump inhibitors (PPI) e.g. Nexium, Somac, Pariet etc... They are safe for long term use to control the symptoms and have very few side effects. The commonest side effect is diarrhoea, which can be avoided by changing to another brand. Other anti-acid medications like Nizatidine, Gaviscon or Mylanta can also be prescribed as judged by your doctor. These medications can prevent further harm to your oesophagus and may heal damage, but will not get rid of the Barrett's change in the oesophagus.

Endoscopic treatment (usually performed for pre-cancer stage):

Endoscopic mucosal resection (EMR) and Endoscopic submucosal Dissection (ESD): This is a procedure during which the abnormal part of the Barrett's oesophagus is removed by shaving it off the lining of the oesophagus during the endoscopy.

Argon plasma coagulation (APC): This method uses argon gas to conduct a high-frequency electrical current to tissues. This ablative therapy is performed during endoscopy via a catheter to burn the abnormal cells within the Barrett's oesophagus thereby allowing normal oesophageal cells to regrow.

Radiofrequency ablation (RFA): This is a treatment that uses energy with radiofrequency waves to burn away the lining of the oesophagus containing Barrett's changes. This procedure is done during endoscopy using a catheter attached to a RFA generator.

Surgery:

If the medicines haven't been enough to help to reduce the symptoms or if a cancer develops in Barrett's oesophagus your doctor may recommend surgery. Referral will be made to a surgeon to discuss this with you. There are two reasons that the surgeon may suggest surgery for Barrett's oesophagus.

1. To strengthen the weakened valve (also called hiatus hernia) at the bottom of the oesophagus, preventing further reflux. This surgery is called a hiatus hernia repair and fundoplication that is commonly performed via key hole operation without a major scar in the abdomen.
2. To remove the abnormal and diseased cells that is progressing towards an invasive cancer in the oesophagus. This surgery is called oesophagectomy. This is a major operation and it can take several months to fully recover. However, this is a rare occurrence and can be lifesaving.

Living with Barrett's Oesophagus

Once Barrett's Oesophagus has been diagnosed and regular acid lowering medications have been started, your doctor will continue to monitor the condition. This involves having an endoscopy and tissue biopsy sampling at regular intervals to detect any abnormal changes in the cells in the Barrett's oesophagus. These check-ups are repeated from anywhere between a few months to 3 years, depending on the severity of the individual's condition. It is important to maintain a healthy life style with good diet, avoiding excessive alcohol and regular exercise. If you are a smoker, it is advisable to stop smoking. Your GP will be able to help you with smoking cessation programme. You may wish to participate in the Western Australia Barretts Oesophagus Registry (WABOR). Please visit www.wabor.org.au

We hope that this information is useful in understanding Barrett's oesophagus and managing your condition. Should you require more information or if you have any queries, please consult your GP or your Consultant Gastroenterologists, Dr Niroshan Muwanwella or Professor Krish Ragunath.