



Barrett's Oesophagus

What is Barrett's?

Barrett's esophagus is a condition affecting the lining of the lower oesophagus in which the normal healthy squamous cells are replaced by abnormal columnar epithelium. Barrett's is associated with gastroesophageal reflux. Barrett's may progress to a precancerous state called dysplasia, which rarely can progress to cancer. The gastroscopy typically shows red strips of columnar epithelium (lining) in the lower oesophagus. Barrett's develops from damage by reflux of acid in conjunction with bile. Most patients with Barrett's suffer heartburn. Heartburn often occurs after meals and when a patient is lying down at night. Temporary relief from an antacid is common. Regurgitation of sour-tasting fluid may occur when the patient bends forward, or it may awaken you at night because of a coughing and choking sensation. A few patients do not have reflux symptoms, and the diagnosis of Barrett's is an incidental finding.

How common is Barrett's?

About 10% of patients with reflux symptoms have Barrett's (defined as at least 3 cm of columnar epithelium (lining) in the oesophagus). Distinguishing this condition in patients with reflux disease is not possible on symptoms alone; symptoms are similar whether Barrett's is present or not.

How is Barrett's diagnosed?

Endoscopy is needed to establish the diagnosis. A biopsy is needed to confirm the diagnosis of Barrett's oesophagus. When multiple biopsies show no intestinal metaplasia but only normal stomach lining, the diagnosis of Barrett's oesophagus should be questioned. The biopsy specimens may have been obtained from columnar epithelium within a diaphragmatic hernia, not from the esophagus. With no intestinal metaplasia, the patient probably does not have an increased risk of cancer and therefore does not need to undergo the anxiety, discomfort, and expense associated with future endoscopic follow-up.

What treatment is available for Barrett's?

As a general principle, the treatment of reflux is the same whether Barrett's oesophagus is present or not. Traditional advice to patients with symptomatic reflux disease has been to elevate the head of the bed at night by using blocks or a foam wedge. Patients are also advised to lose weight, to avoid eating within 3 hours of bedtime, and to cut back on large or high-fat meals. Alcohol, chocolate, peppermint, and raw onions may aggravate reflux and are best avoided. Antacids taken as needed are useful for control of symptoms. These simple and inexpensive measures are sufficient in many patients with mild reflux. Modern drug therapy is more effective, however, and is often needed for patients with Barrett's oesophagus. For the treatment of gastroesophageal reflux disease, with or without Barrett's esophagus, proton pump inhibitors (PPIs) such as Nexium, Losec, Zoton, Pariet, and Somac are the most effective drugs and should be continued on a long-term basis.

Determining *Helicobacter pylori* status is controversial. Of note, treatment with PPIs control symptoms and esophagitis but does not result in regression of Barrett's esophagus. Therefore, the risk of cancer is not eliminated, and the need for continued surveillance is unchanged. If a patient with no symptoms or esophagitis is found incidentally to have Barrett's esophagus, prescribing a PPI or other medication may be unnecessary. Patients with Barrett's esophagus have an increased risk of the development of oesophageal cancer in comparison with the general population. The individual risk is variable from about 1 cancer per 150 person-years or even rarer. Cancerous changes in Barrett's oesophagus develop in a sequence from no dysplasia (metaplastic) columnar epithelium, through low-grade and then high-grade dysplasia, and finally cancer. In high-grade dysplasia, the cells appear malignant but have not yet invaded deeper layers of the oesophageal wall. About 50% of Barrett's patients have no dysplasia, high-grade dysplasia in 5%, low-grade dysplasia in 45%. Interpretation of the grade of dysplasia is difficult, and even experts may disagree. If high-grade dysplasia is suspected, confirmation by a second pathologist is recommended.

What surveillance recommended?

1. For ALL patients with a more than 5-year history of reflux symptoms, a gastroscopy should be considered.
2. Reflux symptoms should be controlled with PPIs, but Barrett's and the risk of cancer remain.
3. For patients with Barrett's and intestinal metaplasia but no dysplasia, 1 – 2 yearly gastroscopy is advised.
4. Barrett's with low grade dysplasia requires more frequent assessment, Individualised to the patient.
5. Surgery or ablation therapy should be considered in those with high-grade dysplasia.