



## Indiana University Health

### Barrett's Esophagus

#### What Is Barrett's Esophagus?

Barrett's esophagus is a condition of the esophagus (swallowing tube), caused by long-term gastroesophageal reflux disease (GERD) - a chronic regurgitation of acid from the stomach into the lower esophagus. If the acid reflux is not treated, some patients can develop abnormal cells lining the esophagus, a condition called Barrett's esophagus. Although the reasons are unknown, males have Barrett's more often than women, and the condition is rare in African-Americans.

Patients with Barrett's esophagus are at an increased risk for developing cancer of the esophagus later in life. Some patients are at higher risk for developing cancer than others, depending on the extent of damage to the esophagus and the type of cells seen on biopsy. Patients with Barrett's esophagus have an approximately 0.2% risk per year of developing adenocarcinoma of the esophagus (a cancer in the lower part of the esophagus). Hence, a young person with Barrett's esophagus has a higher risk than an older person of developing cancer in his or her lifetime.

#### What Are The Symptoms of Barrett's Esophagus?

In almost all cases, only those with a previous history of GERD or chronic heartburn are at risk for getting Barrett's esophagus. Unfortunately, there are no specific symptoms that identify an individual with Barrett's esophagus. Therefore, most experts recommend that an upper endoscopy (EGD) should be performed for those with a long history of heartburn, especially for individuals requiring daily medications and those greater than 50 years of age. However, no one knows when the right time or who should be selected for endoscopy. Still, some people diagnosed with Barrett's esophagus have never experienced heartburn or acid reflux. It's not clear what causes Barrett's esophagus in these cases.

#### How Do You Diagnose Barrett's Esophagus?

Barrett's esophagus can be only diagnosed by performing an upper endoscopy (EGD) and taking biopsies of the esophageal lining (removing several small tissue sample of the abnormal esophagus). The abnormal areas look pink and velvety-like instead of the normal pale appearing esophagus (see figure). One **cannot** diagnose Barrett's esophagus without biopsies of the lining of the esophagus. A doctor who specializes in examining body tissue will examine the sample taken during the upper endoscopy under a microscope. The presence of "goblet cells" (absorptive cells usually found stomach and intestine) are seen in the esophagus and identify patients with Barrett's esophagus. In uncommon cases, biopsy can still miss the diagnosis of Barrett's esophagus. The abnormal areas can be quite small; therefore the diagnosis can be missed if one does not take multiple biopsies.

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## **What Are The Treatments for Barrett's Esophagus?**

Your treatment options for Barrett's esophagus depend on the grade of changes in the cells of your esophagus, your overall health and your own preferences. This grade of changes in the cells is known as "dysplasia".

For those patients with Barrett's Esophagus and no dysplasia, an upper endoscopy should be performed every 3 years to look for dysplastic cells (cells that are at high risk for becoming cancer in the future). It is important that they continue their medications to prevent further damage to the esophagus.

Dysplasia is divided into "low grade" or "high grade" dysplasia. Those patients with "low grade" dysplasia should undergo more frequent upper endoscopies and biopsy (approximately every 12 months). Those patients with "high grade" dysplasia are at high risk for cancer. Sometimes when the upper endoscopy is repeated, no evidence of Barrett's esophagus is detected. This may not mean that the condition has gone away. The affected portion of the esophagus could be very small, and it may have been missed during the endoscopy. For this reason, your doctor will still recommend follow-up endoscopy exams.

The best treatment for "high grade" dysplasia is unclear. One option is surgery to remove most of the esophagus and attach the remaining portion to the stomach. However, newer non-surgical treatments include:

- 1) Endoscopic Mucosal Resection is used to remove areas of bad cells using an endoscope.
- 2) Radiofrequency ablation involves inserting a balloon filled with electrodes in the esophagus emitting short bursts of energy that burns the Barrett's esophagus lining.
- 3) Cryotherapy involves spraying the esophagus with very cold material to remove the Barrett's esophagus lining.

Treatment should be selected carefully by your doctor for each individual.

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