

## **GERD and ASTHMA**

It is estimated that more than 75 percent of patients with asthma also experience gastroesophageal reflux disease (GERD). People with asthma are twice as likely to have GERD as those people who do not have asthma. Of those people with asthma, those who have a severe, chronic form that is resistant to treatment are most likely to also have GERD.

GERD is the backward flow of stomach acids into the esophagus. When this acid enters the lower part of the esophagus, it can produce a burning sensation, commonly referred to as heartburn. If left untreated, GERD can eventually lead to lung damage, esophageal ulcers, and in some instances Barrett's esophagus, a condition that can eventually lead to esophageal cancer.

Does GERD cause asthma?

Although studies have shown a relationship between asthma and GERD, the exact relationship is uncertain. GERD may worsen asthma symptoms, but asthma and some asthma medications may in turn worsen GERD symptoms. However, treating GERD often helps to also relieve asthma symptoms, further suggesting a relationship between the two conditions.

Doctors most often look at GERD as the cause of asthma when:

- Asthma begins in adulthood
- Asthma symptoms get worse after a meal, after exercise, at night or after lying down
- Asthma doesn't respond to the standard asthma treatments.

How can GERD affect my asthma?

As previously mentioned, the exact link between the two conditions is uncertain. However, there are a few possibilities as to why GERD and asthma may coincide. One possibility is that the acid flow causes injury to the lining of the throat, airways and lungs, making inhalation difficult and often causing a persistent cough.

Another possibility for patients with GERD is that when acid enters the esophagus, a nerve reflex is triggered, causing the airways to narrow in order to prevent the acid from entering. This will cause a shortness of breath.

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## What should I do if I have asthma and GERD?

If you have both asthma and GERD, it is important that you consistently take any asthma medications your doctor has prescribed to you, as well as controlling your exposure to asthma triggers as much as possible.

Fortunately, many of the symptoms of GERD can be treated and/or prevented by taking steps to control or adjust personal behavior. Some of these steps include:

- Raise the head of your bed by six inches to allow gravity to help keep the stomach's contents in the stomach. (Do not use piles of pillows because this puts your body into a bent position that actually aggravates the condition by increasing pressure on the abdomen.)
- Eat meals at least three to four hours before lying down, and avoid bedtime snacks.
- Eat smaller meals with moderate portions of food.
- Maintain a healthy weight to eliminate unnecessary intra-abdominal pressure caused by extra pounds.
- Limit consumption of fatty foods, chocolate, peppermint, coffee, tea, colas, and alcohol - all of which relax the lower esophageal sphincter - and tomatoes and citrus fruits or juices, which contribute additional acid that can irritate the esophagus.
- Give up smoking, which also relaxes the lower esophageal sphincter.
- Wear loose belts and clothing.

Aside from these steps, over-the-counter antacids can often relieve GERD symptoms. However, if after one to two weeks these medications do not help with your symptoms, your doctor may need to prescribe medications that block or limit the amount of stomach acid your body produces. Under rare circumstances, GERD may only be treatable through surgery.

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## Long-Term Complications of GERD

If left uncontrolled, chronic (long-term) heartburn, or gastroesophageal reflux disease (GERD), can result in serious problems. Symptoms of GERD include a burning sensation under the chest and regurgitation (bringing up) of stomach fluid. Sometimes, patients wake up during the night because of symptoms. Less commonly, GERD can cause vomiting, bleeding, or difficulty swallowing.

### Esophagitis

When stomach acid repeatedly comes into contact with the lining of the esophagus, it causes injury, which can include erosions or ulcers. Esophagitis may cause symptoms such as heartburn, chest pain, trouble swallowing, or bleeding.

### Barrett's esophagus

Barrett's esophagus is a condition that develops in some people (about 10%) who have long-term GERD. It is a risk factor for cancer of the esophagus.

Damage from acid reflux can cause abnormal changes in the lining of the esophagus. The normal cells that line the esophagus are replaced with a type of cell not usually found in the esophagus. These abnormal cells are similar to those normally found in the lining of the small intestine.

People who have had heartburn for years may be at risk for Barrett's esophagus. Barrett's esophagus is typically diagnosed in people who are middle-aged or older. It is more common in men than in women.

Barrett's esophagus is diagnosed with a test called an upper endoscopy (also known as an EGD) to look at the lining of the esophagus and obtain a biopsy (tissue sample) for examination. Many experts recommend endoscopy to check for Barrett's esophagus in people who have risk factors, such as long-standing heartburn (more than 10 years), white race, male gender, and being overweight. A screening test for Barrett's is not recommended for the general population of patients with heartburn or reflux.

Although uncommon, Barrett's esophagus may lead to esophageal cancer in some patients. Roughly one in 300 people with Barrett's esophagus will develop esophageal cancer each year. Because of the cancer risk, people with Barrett's esophagus are usually checked regularly with endoscopy.

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The goal of treatment of Barrett's esophagus is to prevent further damage by stopping acid reflux from the stomach. Proton pump inhibitor medications like Omeprazole<sup>®</sup>, Nexium<sup>®</sup>, Protonix<sup>®</sup>, Prevacid<sup>®</sup>, Prilosec<sup>®</sup>, and Aciphex<sup>®</sup> and others are the mainstay of treatment. These drugs reduce the amount of acid produced by the stomach. In some patients, surgery to tighten the sphincter or "valve" between the esophagus and stomach may be an option to prevent reflux.

Doctors are also now using newer techniques called ablation to destroy the abnormal tissue. Ablation is performed with endoscopy using various methods including radiofrequency wave energy, laser, and cryotherapy (freezing the tissue). This procedure is usually reserved for patients in special situations, such as those with a high risk of developing esophageal cancer and who are unable to go through major surgery.

### Strictures

Sometimes the damaged lining of the esophagus becomes scarred, causing narrowing of the esophagus. These strictures can interfere with eating and drinking by preventing food and liquid from reaching the stomach. Strictures can be treated by dilation, in which an instrument gently stretches and expands the opening in the esophagus.

### Esophageal cancer

Cancer that begins in the esophagus is divided into two major types:

- **Squamous cell carcinoma:** This type of cancer begins in the special cells—called squamous cells—that line the esophagus. This cancer usually affects the upper and middle part of the esophagus. Risk factors include smoking and heavy alcohol use.
- **Adenocarcinoma:** This type of cancer usually develops in the lower part of the esophagus. It can arise from Barrett's esophagus.

Esophageal cancer in its early stages often has no symptoms. Difficulty swallowing is the most common symptom of esophageal cancer. As the cancer grows, it narrows the opening of the esophagus, making swallowing difficult and/or painful.

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