



Heartburn and gastro-oesophageal reflux disease

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Introduction

Gastro-oesophageal reflux disease (GORD) is a common condition that occurs when acid from the stomach leaks up into the oesophagus and/or mouth. Almost everyone has heartburn caused by acid reflux from time to time. Occasional reflux is normal and may occur in healthy infants, children, and adults, most often after eating a meal. Most episodes are brief and do not cause bothersome symptoms or complications. In contrast, people with GORD experience annoying symptoms or damage to the oesophagus as a result of acid reflux. GORD is a chronic condition and once it begins, it usually is life-long.

What causes GORD?

At the lower end of the oesophagus (food pipe), where it connects to the stomach, there is a circular ring of muscle called the lower oesophageal sphincter (LOS). When swallowing, it relaxes to allow food and liquid to flow into the stomach. It then closes again, which helps to keep the contents of the stomach from rising back up the oesophagus. However, if the LOS becomes weakened or relaxes abnormally, it may not close properly, allowing stomach acid to flow back up into the oesophagus, causing symptoms such as heartburn. This constant backwash of acid irritates the lining of the oesophagus, often causing it to become inflamed. In some people, acid reflux causes bothersome symptoms or injury to the oesophagus over time. When this occurs, the condition is considered GORD.

Symptoms

Heartburn and regurgitation are common symptoms of GORD. Heartburn is experienced as a burning sensation or feeling of discomfort in the chest, usually after eating. This may be worse at

night. Regurgitation occurs when the stomach contents (acid mixed with bits of undigested food) flow back into the mouth or throat. Other symptoms of GORD may include nausea, stomach pain, a sensation of a lump in the throat, difficulty or pain when swallowing, chest pain, a persistent sore throat, bloating and belching.

Complications of GORD may include:

- ulcers
- laryngeal and throat inflammation
- inflammation and infection of the lungs
- asthma and cough
- Barrett's oesophagus
- a collection of fluid in the sinuses and middle ear

Risk factors

The following factors may aggravate acid reflux:

- consuming certain foods (triggers) such as spicy, fried or fatty foods
- stress
- smoking
- eating large meals or eating late at night
- drinking certain beverages, such as coffee or alcohol
- certain medications, such as nonsteroidal anti-inflammatory drugs (NSAIDs)

Conditions that may increase the risk of developing GORD include:

- being overweight or obese
- pregnancy, due to changes in hormone levels which may relax the LOS, as well as the increased pressure on the stomach during pregnancy
- slow or prolonged emptying of the stomach
- bulging of the top of the stomach up into the diaphragm (hiatus hernia)
- abnormal oesophageal contractions

Table I: Management of heartburn and GORD

Lifestyle changes
Certain lifestyle and dietary changes may often help relieve symptoms of GORD. They include maintaining a healthy weight, avoiding foods that trigger symptoms, quitting smoking and cutting back on alcohol. It is also recommended to raise the head of the bed if symptoms are worse at night and to avoid lying down after eating. Eating smaller portions more frequently, instead of 3 large meals each day and eating the evening meal 2 to 3 hours before going to bed may help prevent symptoms. Wearing loose, comfortable clothing may also be helpful.
Medication
Lifestyle changes alone may not be effective in controlling symptoms in certain patients. OTC medications are available to help alleviate symptoms. In addition to lifestyle changes, the initial treatment of mild GORD includes the use of non-prescription antacids, antacid combinations or histamine receptor antagonists. Patients with more severe or frequent symptoms, complications related to GORD, or mild symptoms that have not responded to the above medications usually require treatment with a medication called a proton pump inhibitor (PPI).
Antacid combinations
Antacids help to neutralise the acid in the stomach. They are commonly used for the short-term relief of symptoms such as heartburn, flatulence and indigestion. Antacids may be calcium-, aluminium- or magnesium-based. ⁴ Alginates are extracts from algae. When used in combination with antacids, they may help to prevent reflux oesophagitis. Antacids may provide quick relief as they have a rapid onset of action. However, the neutralising effect only lasts for a short period of time (approximately 30 to 60 minutes after each dose). They are emptied from the empty stomach quickly, in less than an hour, and the acid then re-accumulates.
Histamine (H ₂) receptor antagonists
The H ₂ receptor antagonists reduce gastric acid production/secretion by blocking the action of histamine at the H ₂ receptors in the parietal cells of the stomach. H ₂ receptor antagonists do not act as quickly as antacids, but they provide longer relief and may decrease acid production from the stomach for up to 12 hours. Stronger versions are available with a prescription.
Proton pump inhibitors
As a class, the PPIs are potent suppressors/blockers of gastric acid secretion. PPIs also protect the oesophagus from acid secretion, allowing time for damaged oesophageal tissue to heal. ^{2,5} Certain PPIs are available OTC, including lansoprazole, pantoprazole and omeprazole. They are indicated for the short-term relief of heartburn and hyperacidity. It is recommended to take the lowest possible dose for the shortest possible time.

Management

GORD is treated according to the frequency and severity of symptoms, as well as whether or not there are complications. Most people may manage the discomfort of GORD with lifestyle changes and over-the-counter (OTC) medications. However, some patients with GORD may need to be referred to the doctor for prescribed medications or to have surgery to ease symptoms.

When to refer?

The patient should be referred to the doctor if they experience severe and frequent symptoms. They should also see the doctor if the symptoms are not fully relieved by OTC medications or a change in lifestyle. Other indications for referral include pain or difficulty when swallowing, chest pain, loss of weight and exacerbation of symptoms when exercising. Having signs of bleeding in the gastrointestinal tract, such as black stools, blood in the vomit or dark-coloured vomit that looks like coffee grounds may indicate a more serious problem and requires prompt referral to the doctor.

Conclusion

Heartburn experienced once or twice a month may be managed with lifestyle changes and OTC medication. The patient should be referred to the doctor if they have frequent and severe symptoms and are using OTC medications on a daily or weekly basis.

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