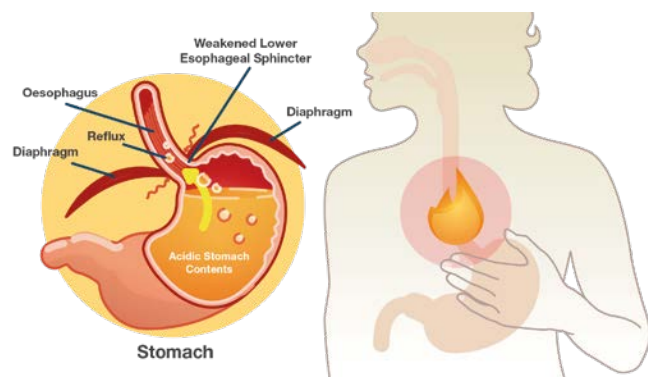


Gastroesophageal Reflux Disease (GERD)



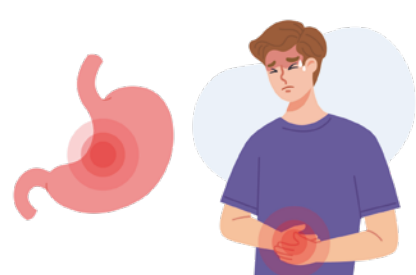
Gastroesophageal reflux also known as acid reflux, is a condition that occurs when the contents of the stomach, including stomach acid, flow back up into the oesophagus. The oesophagus is the tube that connects the throat to the stomach.

Normally, a muscular ring called the lower oesophageal sphincter (LES) keeps the contents of the stomach from flowing back into the oesophagus. However, if the LES becomes weak or relaxes inappropriately, stomach acid can reflux into the oesophagus, causing various symptoms.

Common signs and symptoms of gastroesophageal reflux disease (GERD) include:

- **Heartburn:** A burning sensation in the chest, often after eating or when lying down. It may worsen at night or after consuming certain foods or drinks.
- **Regurgitation:** The backflow of stomach acid or food into the throat or mouth, resulting in a sour or bitter taste.
- **Chest pain:** GERD-related chest pain may resemble heart-related chest pain (angina), but it is typically not related to the heart. It may be a burning or squeezing sensation.
- **Chronic cough:** A persistent, dry cough that is often worse at night or upon waking up. It may be triggered by irritation from stomach acid reaching the throat.
- **Hoarseness or sore throat:** The recurrent exposure of the throat to stomach acid can lead to voice changes, hoarseness, or a persistent sore throat.
- **Laryngitis:** Inflammation of the voice box (larynx) caused by acid reflux, leading to symptoms such as a hoarse voice or difficulty speaking.
- **Dental problems:** Frequent exposure of the teeth to stomach acid can cause dental erosion, tooth enamel damage, or other oral health issues.

It's important to note that not everyone with GERD experiences all of these symptoms, and the severity can vary among individuals.



What causes GERD?

Most cases of GERD are caused by problems with the lower oesophageal sphincter, a muscle in your food pipe that keeps stomach contents from coming up into the mouth.

Weakness of the lower oesophageal sphincter can prevent it from closing properly. This allows acid to leak up into the oesophagus, causing heartburn.

Lower oesophageal sphincter weakness is more likely to occur in the following conditions:

- Being overweight or obese
- Pregnancy
- Stress
- Smoking
- Intake of certain medicines, such as ibuprofen
- Diabetes
- Certain health conditions such as hiatus hernia, in which part of the stomach pushes through the diaphragm (the muscle that separates the abdomen from your chest).

Read more:

<https://www.niddk.nih.gov/health-information/digestive-diseases/acid-reflux-ger-gerd-adults/symptoms-causes>

Diagnosis

To diagnose GERD (gastroesophageal reflux disease) and check for complications, healthcare providers may use one or more of the following tests:

- **Upper Endoscopy (Esophagogastroduodenoscopy):** This test involves the insertion of a flexible tube with a camera (endoscope) through the mouth and into the oesophagus, stomach, and upper part of the small intestine.
- **Oesophageal pH Monitoring:** This test measures the amount of acid in the oesophagus over 24 hours.
- **Oesophageal Manometry:** This test measures the pressure and movement of the oesophagus and the lower oesophageal sphincter (LES). A thin tube is inserted through the nose and into the oesophagus, and the patient swallows to evaluate the muscle contractions and coordination of the oesophagus.
- **Barium Swallow (Upper GI Series):** In this test, the patient drinks a liquid containing barium, a contrast material that makes the oesophagus and stomach more visible on X-rays.
- **Bravo Oesophageal pH Test:** This is a variation of the oesophageal pH monitoring test.

The choice of tests depends on the specific symptoms, the severity of GERD, and the need to rule out other conditions with similar symptoms. It's important to consult a healthcare professional to determine which tests are most appropriate for an individual case.

For more information, please check the following link:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4133436/>

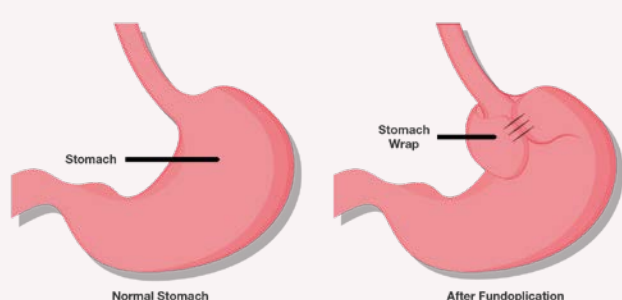
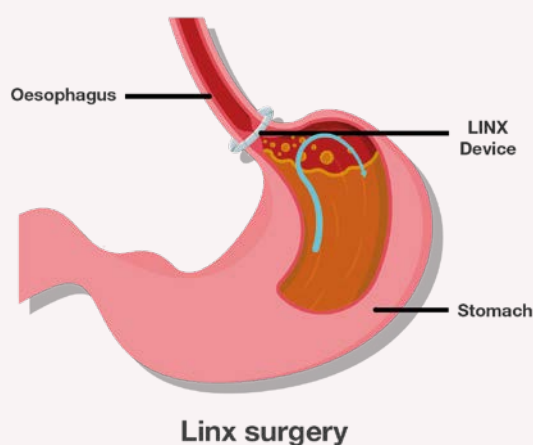
Treatment and Management

When it comes to managing gastroesophageal reflux disease (GERD), doctors often recommend starting with lifestyle changes and non-prescription medications as an initial step.

Lifestyle changes for GERD may include:

- **Dietary modifications:** Avoiding trigger foods and beverages such as fatty or fried foods, spicy foods, citrus fruits, tomatoes, chocolate, caffeine and alcohol.
- **Eating habits:** Eating smaller, more frequent meals, avoiding lying down immediately after eating, and giving yourself a few hours before bedtime after eating.
- **Weight management:** If overweight or obese, losing weight can help alleviate GERD symptoms.
- **Sleeping position:** Elevating the head of the bed by 6 to 8 inches can help prevent acid reflux during sleep.

Non-prescription medications commonly recommended for GERD include antacids, which neutralise stomach acid, and H2 receptor antagonists (H2 blockers), which reduce the production of stomach acid.



If lifestyle changes and non-prescription medications do not provide sufficient relief within a few weeks, the doctor may consider prescribing stronger medications, such as proton pump inhibitors (PPIs), which further reduce stomach acid production. In some cases, additional testing may be recommended to assess the severity of the condition or rule out other underlying causes. In some cases, a doctor may recommend surgical procedures, such as:

- **Linx surgery:** To wrap a ring of tiny beads around the oesophagus where it goes into the stomach.
- **Nissen fundoplication:** Wrap the top part of the stomach around the lower part of the oesophagus. This can be done laparoscopically.

It's important to note that individual cases may vary and it's best to consult with a healthcare professional for personalised advice and guidance regarding your specific situation.