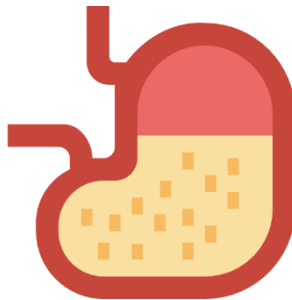




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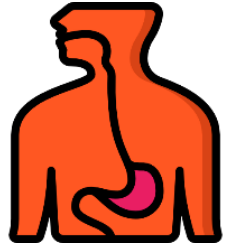
مستشفى الملك فهد الجامعي  
King Fahad Hospital The University

# Gastroesophagea I Reflux Disease (GERD)



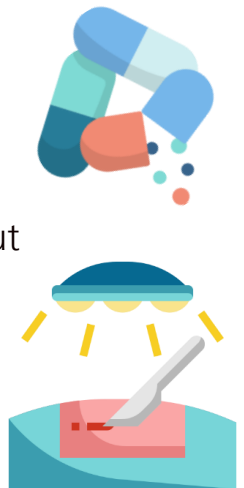
## What is Gastroesophageal Reflux Disease?

Gastroesophageal reflux disease (GERD) occurs when stomach acid flows backward into the esophagus. This backflow causes the lining of the esophagus to become [irritated](#).



Acid reflux occurs naturally from time to time, but [gastroesophageal reflux disease](#) is a [severe](#) reflux that occurs at least twice a week.

You can manage the discomfort of GERD by changing your lifestyle and taking some over-the-counter or nonprescription medications. But some people with GERD may need [stronger medications](#) or [surgery](#) to relieve the symptoms.

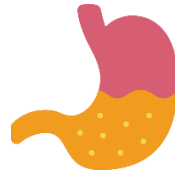


## What are symptoms of GERD?

- ❖ burning feeling and pain in chest



- ❖ Heartburn usually after eating



- ❖ Feelin of a lump in the throat



- ❖ Chronic cough



## What are symptoms of GERD?

- ❖ swallowing Difficulty



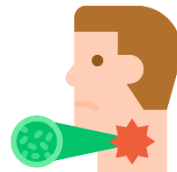
- ❖ Sleep disturbance



- ❖ food reflux or sour liquids

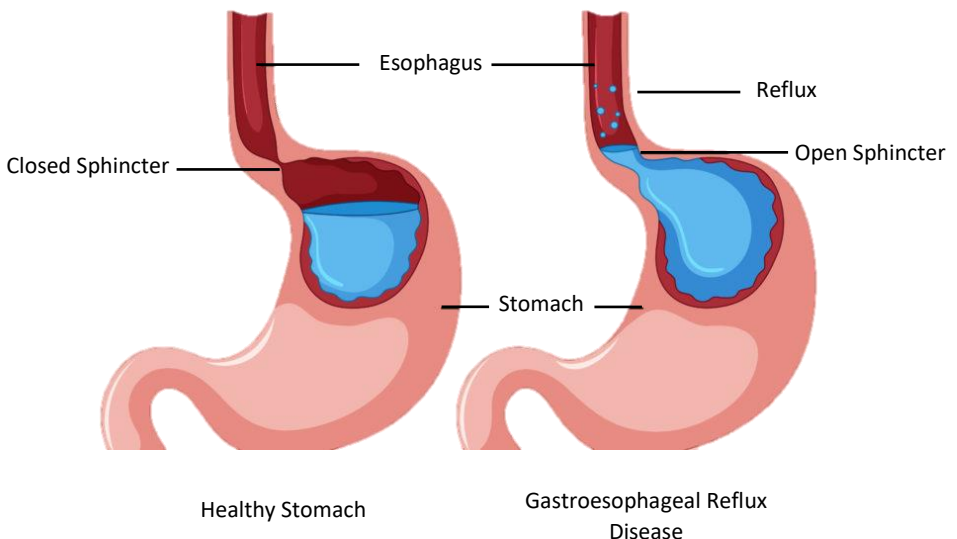


- ❖ Laryngitis



## How does gastroesophageal reflux disease occur?

When you swallow, the circular group of muscles in the lower part of the esophagus (**the sphincter**) relaxes to allow food to pass to the stomach, then the sphincter contracts again. If the muscle relaxation is working weakly or abnormally, this makes acid to flow back up from the stomach into the esophagus, which irritates the lining of the esophagus, and may cause it to become inflamed.



## What are the risk factors that may increase the risk of GERD?

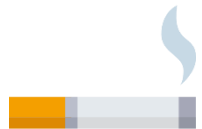
1. **Obesity:** where the stomach swells, specifically the upper part and the diaphragm too. This increases the possibility of developing gastroesophageal reflux.



2. **Pregnancy:** causes disturbances in some tissues, causing skin hardening and delayed gastric emptying.



3. **Smoking**



4. **Eating heavy meals or eating late at nights:** before bedtime two or three hours



## What are the risk factors that may increase the risk of GERD?

5. Taking a lot of medications



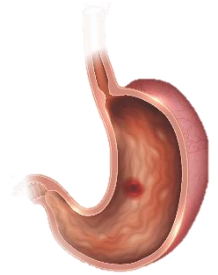
## What are complications caused by chronic esophagus inflammation?

1. **Narrowing of the esophagus:** Chronic inflammation may cause damage to esophagus lower part because stomach acid causes formation of inflamed tissue narrows the pathway of the food through the esophagus.

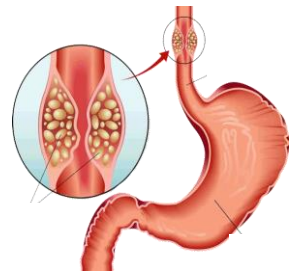


## What are complications caused by chronic esophagus inflammation?

2. **Esophageal ulcer:** stomach acid may cause ulcer formation. This may increase the feeling of pain in the esophagus and make swallowing more difficult.



3. **Esophageal cancer:** Increasing acid in the esophagus may cause changes in the lower esophageal tissue which increases the risk of developing esophageal cancer.

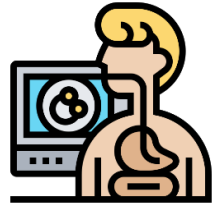




## How is GERD diagnosed?

Your physician may recommends you with the following:

❖ **Gastroscopy:** A flexible tube which has a camera is inserted down the throat to examine the esophagus and stomach. It helps to detect inflammation in the esophagus or any other complications.



❖ **PH test:** A monitor is placed in the esophagus in order to determine how long the stomach acid has remained in the esophagus. You need to wear the monitor around the waist or on the shoulder. It may be a catheter that is passed through the nose into the esophagus.



## How is GERD diagnosed?

- ❖ **Esophageal motility test:** This measures the contraction of voluntary muscles in the esophagus upon swallowing. It measures esophageal pressure in terms of coordination and muscle strength.



- ❖ **X-ray imaging:** You will be given solution to drink as the solution covers the inner lining of your digestive system. This allows a clear picture of the esophagus, stomach and upper intestine.



You may also be asked to swallow barium tablets, which facilitate the diagnosis of esophageal **narrowing** that is causing difficulty swallowing.



## How is GERD treated?

Your doctor will likely suggest first that you try to change your lifestyle while taking some over-the-counter medications. Your doctor may recommend a specific medication if you need to, or he/ she may recommend surgery.



## What are over-the-counter medications can I take?

### 1- Antacids to neutralize stomach acids:

Antacids lead to quick relief, but it is not considered a cure for an inflamed esophagus.

Excessive intake can cause side effects such as diarrhea



2- Medications that reduce acid production: known as histamine H-2 receptor inhibitors. It helps to provide long-term relief, as it reduces the secretion of stomach acids for up to 12 hours.



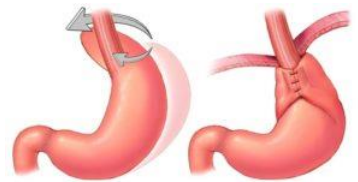
3- Medications that reduce acid production and speed up the esophageal healing process: Known as proton pump inhibitors, they are stronger acid inhibitors and allow time for damaged esophageal tissue to heal.

## What are the other solutions (surgery)?

GERD can usually be controlled with medication.

However, if medications do not help or if the medication is avoided in the long term, your doctor may recommend one of the following procedures:

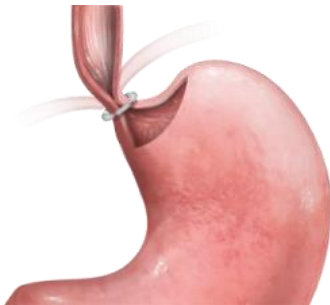
**Fundoplication:** It is the wrapping or folding of the upper part of the stomach around the **esophageal sphincter** to prevent **reflux**. The fundoplication is performed (**laparoscopic surgery**). The upper part of the stomach can be wrapped **partially or completely**.



## What are the other solutions (surgery)?

**Linux device:** when placed, tiny magnetic beads are wrapped around the junction between the stomach and the esophagus. The magnetic attraction between these beads is strong enough to keep the link closed to the reflux acid, and at the same time weak to allow food to pass through.

With laparoscopic surgery, a Linux device can be implanted



## What lifestyle changes should I follow to avoid a recurrence or exacerbation of GERD?

Lifestyle changes may help reduce reflux Try to:

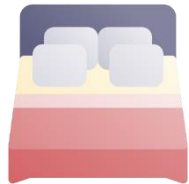
1- **Maintain a healthy weight:** over-weight puts pressure on the stomach, which pushes the stomach and causes acid reflux into the esophagus.



2- **Avoid sleeping after eating:** you should wait three hours after eating before going to bed.



3- **Elevate bed's head:** If you suffer from regular heartburn when you are sleeping, place a wooden piece under the feet of the bed so that the end of the bed on the head side is raised from 15 to 20 cm. Putting extra pillows to elevate your head is not effective.



## What lifestyle changes should I follow to avoid a recurrence or exacerbation of GERD?

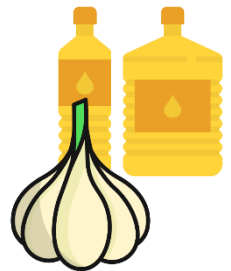
4- Quit Smoking: If you are smoking, try to stop smoking



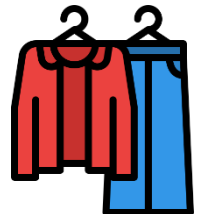
5- Eat slowly and chew food well



6- Avoid eating foods that cause heartburn: including full fat foods, garlic and onions.



7- Avoid wearing tight clothing.





## Sources and references

All pictures used are from the (flaticon) website

## Review and audit:

The content of this booklet has been reviewed by consultants of the  
Surgery department at King Fahad University Hospital

## Health Awareness Unit

IAU-20-83



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