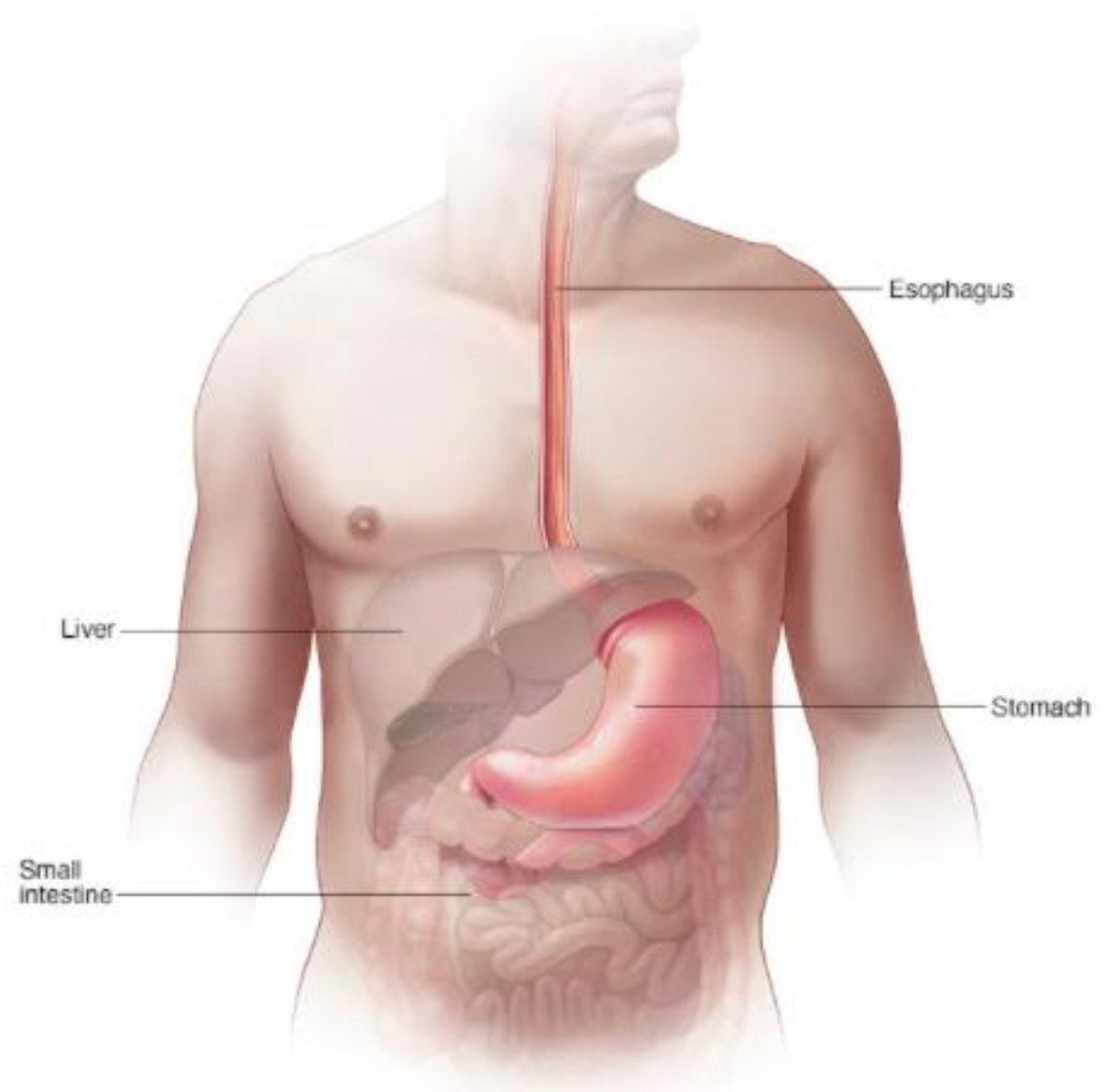


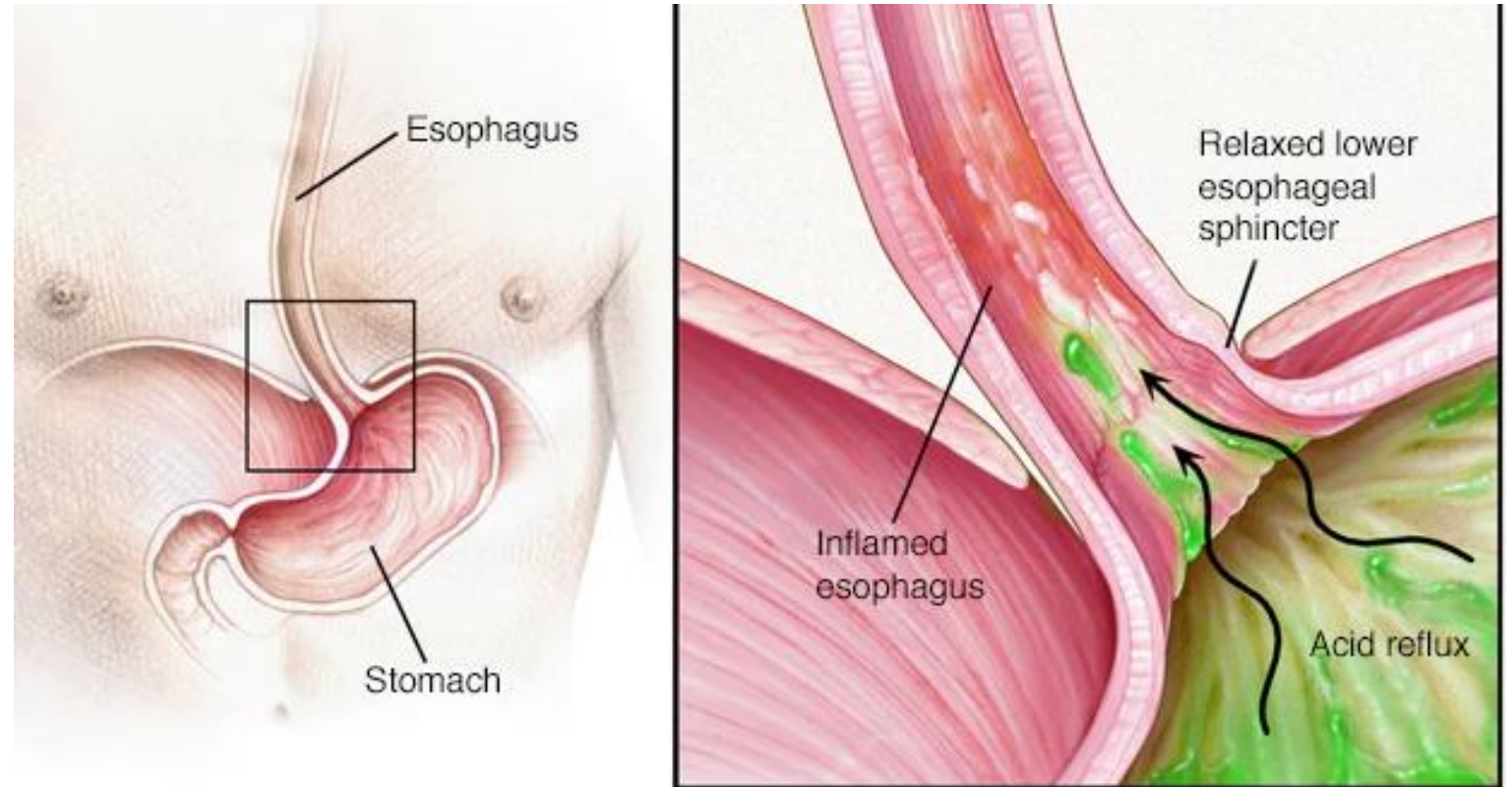
GERD
(Gastroesophageal reflux
disease)

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Internal Medicine

Anatomy of Upper Gastrointestinal System

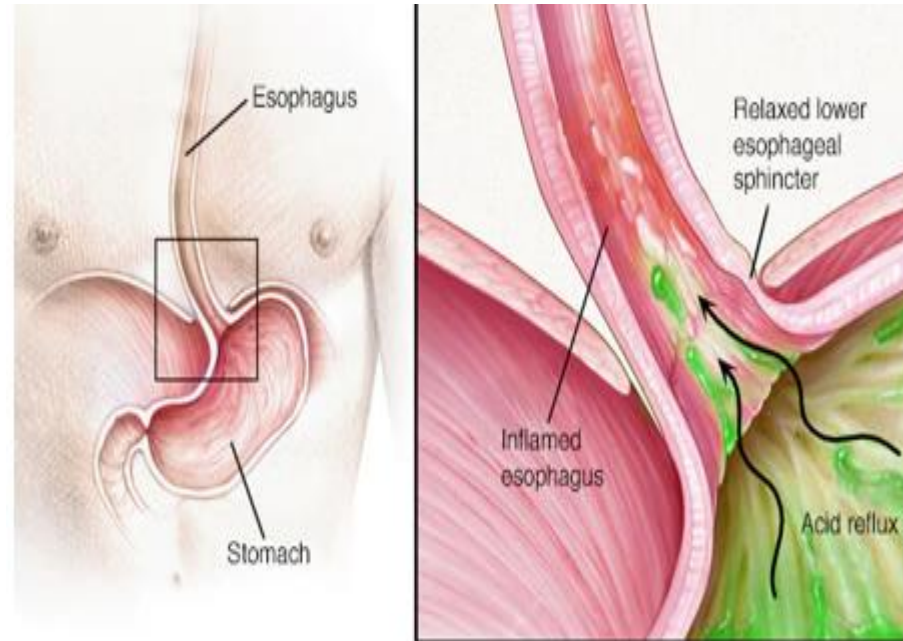


GERD (acid reflux or heartburn) is a condition in which acid containing contents from the stomach persistently leak back up into esophagus



Prevalence of GERD in adult
population is 10-20%

Causes of acid reflux :



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When you swallow, a circular band of muscle around the bottom of your esophagus (lower esophageal sphincter) relaxes to allow food and liquid to flow into your stomach. Then the sphincter closes again.

If the sphincter relaxes abnormally or weakens, stomach acid can flow back up into your esophagus. This constant backwash of acid irritates the lining of your esophagus, often causing it to become inflamed

Risk Factors

Obesity

Bulging of the top of the stomach up into the diaphragm (hiatal hernia)

Pregnancy

Connective tissue disorders, such as scleroderma

Delayed stomach emptying

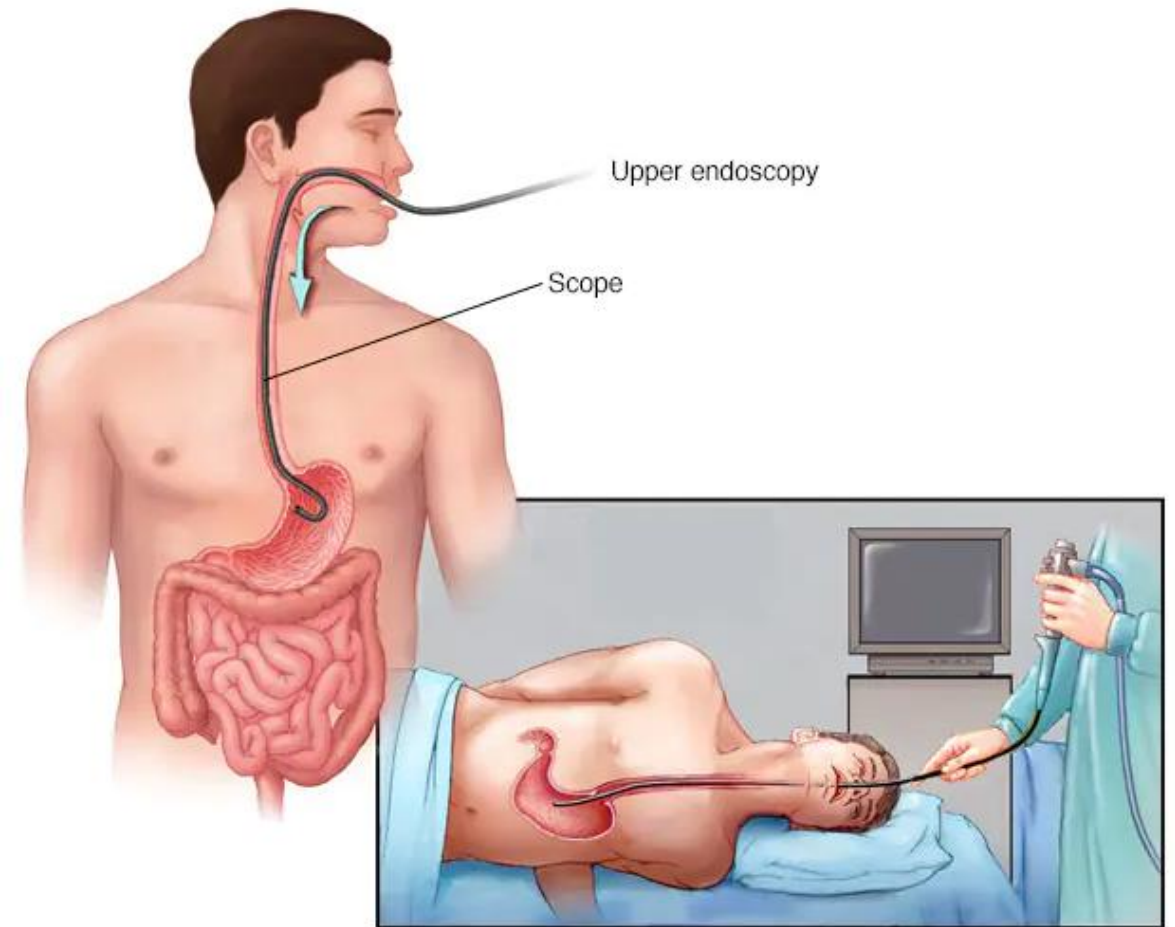
Symptoms

- Common symptoms of GERD are :
- Heartburn.
- Regurgitation
- Coughing.
- Feeling of food getting caught in the throat
- Chest pain.
- Problem swallowing.
- Vomiting.
- Sore throat and hoarseness.

Diagnosis

The diagnosis of GERD is often based on clinical symptoms alone in patients with classic symptoms like heartburn

Upper Endoscopy (EGD)



Diagnosis (continued)

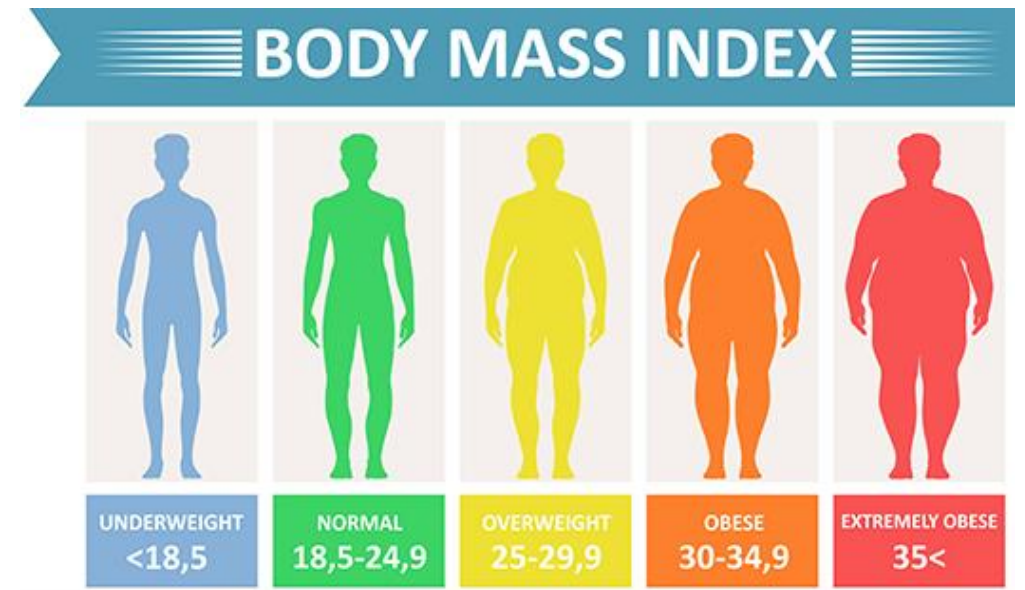
- **Ambulatory acid (pH) probe test.** A monitor is placed in your esophagus to identify when, and for how long, stomach acid regurgitates there.

Diagnosis (continued)

- **Esophageal manometry.** This test measures the rhythmic muscle contractions in your esophagus when you swallow.

Prevention of GERD

1) Achieve and maintain healthy weight



Prevention of GERD

2) Eat small, frequent meals rather than huge amounts a few times a day.



Prevention of GERD

3) Reduce fat by decreasing the amount of butter, oils, salad dressings, gravy, fatty meats and full-fat dairy products such as sour cream, cheese and whole milk



Prevention of GERD

4) Sit upright while eating and stay upright (sitting or standing) for 45 to 60 minutes afterward.

Prevention of GERD

5) Avoid eating before bedtime. Wait at least three hours after eating to go to bed

Prevention of GERD

6). Try not to wear clothes that are tight in the belly area. They can squeeze your stomach and push acid up into the esophagus.

Prevention of GERD

7). When sleeping, raise the head of the bed 6 to 8 inches, using wooden blocks under the bedposts. Extra pillows don't work

Prevention of GERD

8). Stop smoking



Prevention of GERD

9). Cut possible trigger foods.

- Spicy foods.
- Fried foods.
- Fatty (including dairy) foods.
- Chocolate.
- Tomato sauces.
- Garlic and onions.
- Alcohol, coffee and carbonated drinks.
- Citrus fruits.

Treatment of GERD

- **Antacids** Tums[®], Roloids[®], Mylanta[®], Riopan[®] and Maalox[®].
- **H-2 receptor blockers** Tagamet[®], Pepcid AC[®], Axid AR[®] and Zantac[®].
- **Proton pump inhibitors** (include Prevacid[®], Prilosec[®], Zegerid[®], Nexium[®], Protonix[®], AcipHex[®] and Dexilant[®]).

Antacids

- **Antacids** (provide quick relief by neutralizing stomach acids) include Tums[®], Rolaids[®], Mylanta[®], Riopan[®] and Maalox[®].
- As antacids do not prevent GERD, their role is limited to intermittent (on-demand) use for relief of mild GERD symptoms that occur less than once a week. Antacids usually contain a combination of magnesium trisilicate, aluminum hydroxide, or calcium carbonate, which neutralize gastric pH, thereby decreasing the exposure of the esophageal mucosa to gastric acid during episodes of reflux. Antacids begin to provide relief of heartburn within five minutes, but have a short duration of effect of 30 to 60 minutes.

Histamine 2 Receptor Antagonists

- Include Pepcid
- In contrast to antacids, H2RAs have a slower onset of action, reaching peak concentrations 2.5 hours after dosing, but a significantly longer duration of action of 4 to 10 hours. H2RAs are also more effective in decreasing the frequency and severity of heartburn symptoms as compared with antacids and placebo.
- However, H2RAs have limited efficacy in patients with erosive esophagitis.

Proton Pump Inhibitors

- Include Prevacid[®], Prilosec[®], Zegerid[®], Nexium[®], Protonix[®], AcipHex[®] and Dexilant[®]
- Strong acid blockers and heal damaged lining of esophagus
- Most effective in relieving symptoms of GERD
- Most effective when taken 30 mins before the first meal of the day.
- Administered daily rather than on-demand
- Usually given for 6-8 weeks.

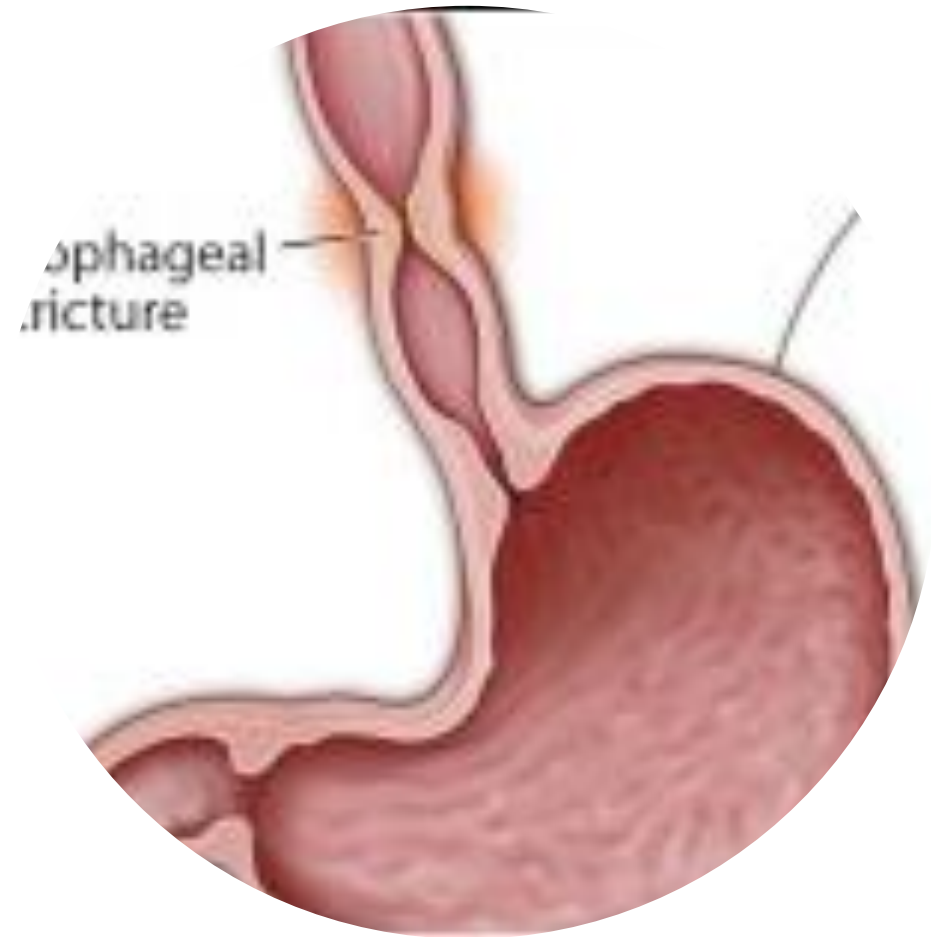
Complications of GERD

GERD isn't life-threatening or dangerous in itself . But long-term GERD can lead to mores serious health problems:

- **Esophagitis** : inflammation of lining of esophagus leading to ulcers , heartburn, chest pain, bleeding and trouble swallowing.
- **Barrett's esophagus**: Barrett's esophagus is a condition that develops in some people (about 10%) who have long-term GERD. The damage acid reflux can cause over years can change the cells in the lining of the esophagus. Barrett's esophagus is a risk factor for cancer of the esophagus.

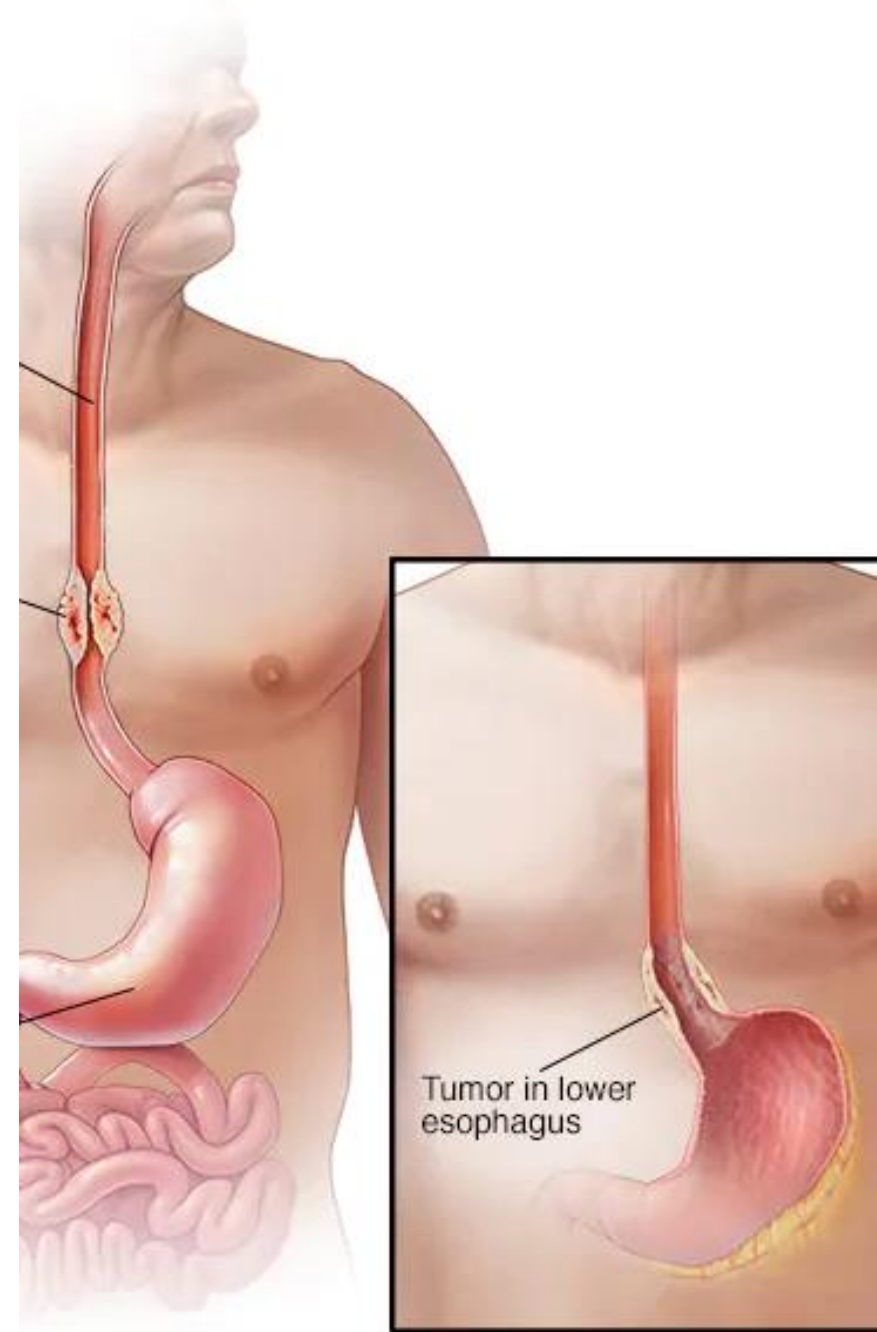
Complications of GERD (continued)

- **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.



Complications of GERD (continued)

- **Esophageal Cancer**



Prevention of GERD

- Achieve and maintain a healthy weight.
- Eat small, frequent meals rather than huge amounts a few times a day.
- Reduce fat by decreasing the amount of butter, oils, salad dressings, gravy, fatty meats and full-fat dairy products such as sour cream, cheese and whole milk.
- Sit upright while eating and stay upright (sitting or standing) for 45 to 60 minutes afterward.
- Avoid eating before bedtime. Wait at least three hours after eating to go to bed.
- Try not to wear clothes that are tight in the belly area. They can squeeze your stomach and push acid up into the esophagus.
- When sleeping, raise the head of the bed 6 to 8 inches, using wooden blocks under the bedposts. Extra pillows don't work.
- Stop smoking.
- Your healthcare provider may prescribe acid-reducing medications. Be sure to take them as directed.
- Cut out possible trigger foods.

**Believe you can
and you're halfway there.**

- Theodore Roosevelt



Questions ???