



Heartburn

Statistics: Heartburn by the Numbers

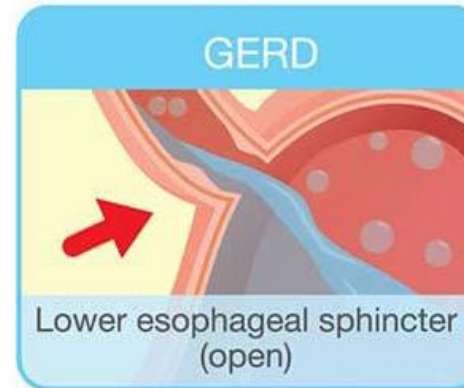
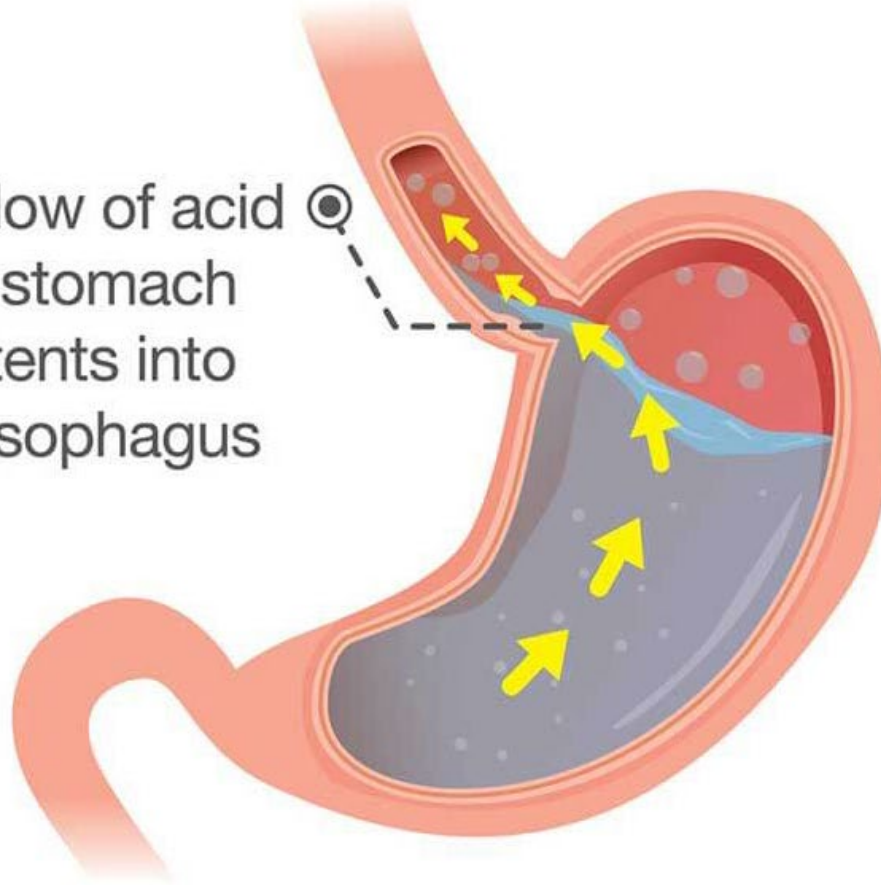
- **Almost everyone (100%)** will experience heartburn at some point in their lives.
- **More than 40%** of Americans suffer from heartburn pain at least one time each month.
- **Almost 95%** of people with heartburn link their symptoms to a particular food.
- **Only 20%** of heartburn happens during the day—the vast majority of people report feeling symptoms at night.
- **More than 50%** of pregnant women report heartburn— most in the third trimester.

What is it ?

- A form of indigestion felt as a burning sensation in the chest, caused by acid regurgitation into the esophagus.
- A symptom of **GERD (Gastroesophageal Reflux Disease)**, and is caused by acid refluxing back into the esophagus.
- The other causes includes:
 - 1. Peptic Ulcer.**
 - 2. NSAIDs Induced Ulcer.**

GERD

Backflow of acid and stomach contents into the esophagus



Symptoms

- Heartburn
- Nausea & Vomiting
- Belching
- Irritating Cough
- Dyspepsia

PEPTIC ULCER

PAIN IN YOUR STOMACH

INDIGESTION

LOSS OF APPETITE

NAUSEA

BLOATING

HEARTBURN

STOOL DISCOLORATION

BLOOD IN VOMIT

Symptoms

HELICOBACTER PYLORI BACTERIAL INFECTION

NONSTEROIDAL ANTI-INFLAMMATORY DRUGS

ALCOHOLIC BEVERAGES

ZOLLINGER-ELLISON SYNDROME

HYPERCALCEMIA

EXCESS STRESS

LOW LEVELS OF MELATONIN

Causes

NSAIDs Induced Ulcer

- ✓ **Hampers gastric mucus & mucin production.**
- ✓ **Causes GI perforation.**
- ✓ **Bleeding & Ulcer.**

Symptoms of Heartburn

- ✓ Burning sensation behind the sternum or breastbone.
- ✓ Water brash/ Sour taste in the back of the throat.
- ✓ Coughing episodes or hoarseness.
- ✓ Tooth Decay.
- ✓ Sleep Disturbance.

Heartburn Triggers: What's burning you ?

- A number of foods, drinks, and medicines can cause the LES to relax.



Chocolates



Caffeine



Alcohol



Citrus



Spices



Tomatoes



Medicines

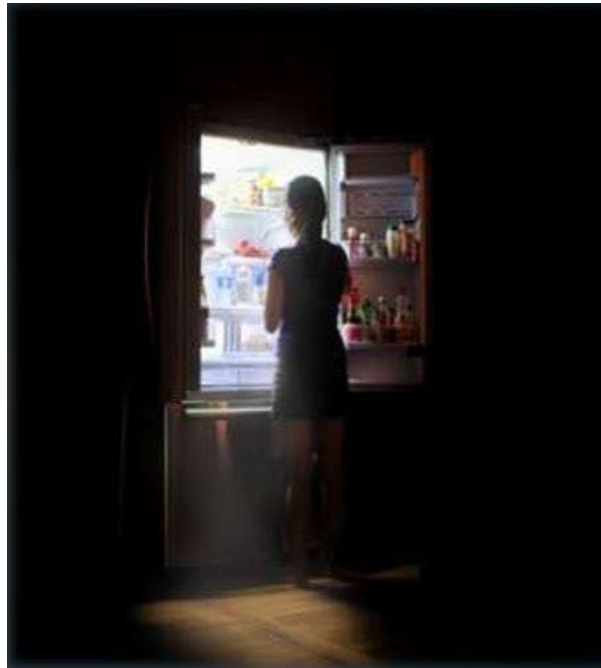
Heartburn Triggers: What's burning you ?

- Top three Triggers:

- 1.Fatty foods.

- 2.Large portions.

- 3.Late-night meals.



Juices from your last meal may come back to haunt you!

Heartburn Triggers: What's burning you ?

- • Foods are not the only triggers.
- • Other Triggers:



Smoking



Pregnancy



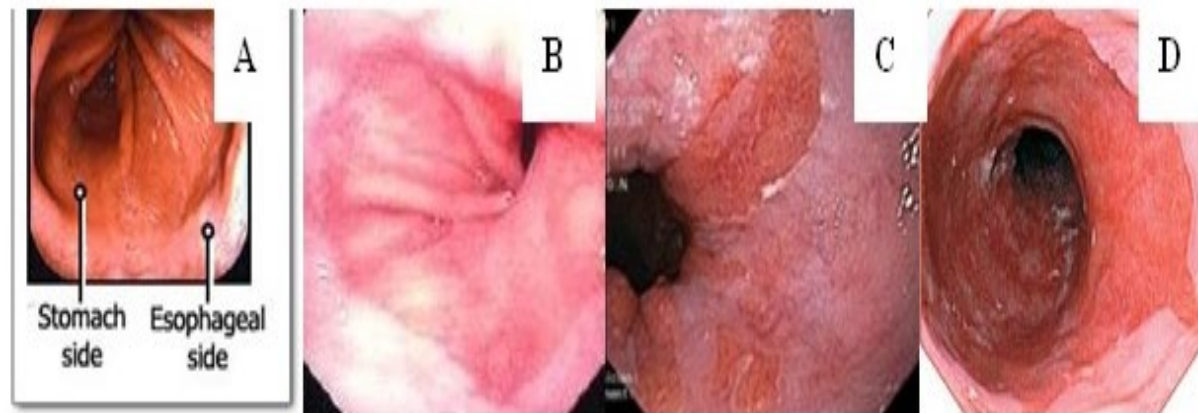
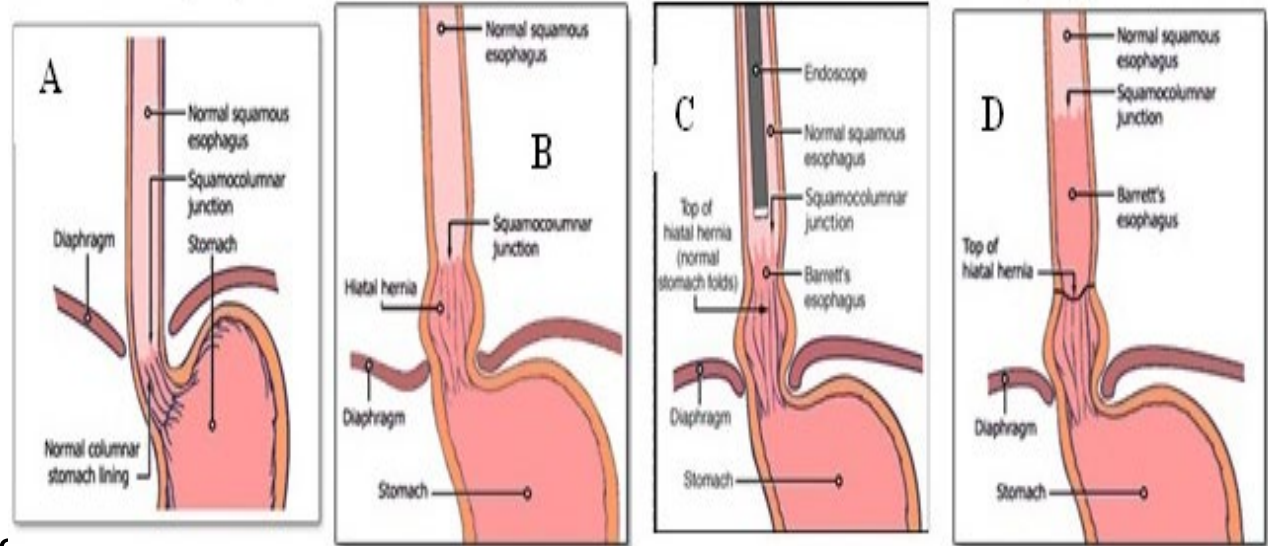
Obesity

Complications of Heartburn

- If ignored, recurrent irritation and inflammation of the esophagus can lead to ulcers.
- As well, scarring and stricture are other significant complications of GERD.
- It Changes in the type of cells lining the esophagus may result from acid reflux, causing a condition known as **Barrett's Esophagus**.

Barrett's Esophagus

- A condition in which tissue that is similar to the lining of your intestine replaces the tissue lining your esophagus.
- Associated with an increased risk of esophageal cancer.
- GERD increases your chances of developing the condition.



TREATMENT

Available treatment options :-

1. Acid Neutralizers :

- Antacid.
- Magaldrate/Simethicone.
- Sodium Alginate/Potassium Bicarbonate.

2. Proton Pump Inhibitors :

- Rabeprazole.
- Omeprazole.
- Esomeprazole.
- Pantoprazole.

3. H₂ receptor blocker :

- Ranitidine.
- Famotidine.

LIMITATIONS OF AVAILABLE TREATMENTS

CATEGORY	
Acid Neutralizers	H2 receptor blocker
Short acting	Short acting
Only neutralizes the produced acid	Slow onset of action
Unable to inhibit Proton Pump	Only block Histamine receptor but not Acetylcholine & Gastrin.
Inconvenient for long-term use	long-term use may causes gynecomastia

Advantage of Rabeprazole & limitations of other PPIs

PPI	Rabeprazole	Omeprazole	Esomeprazole	Pantoprazole
Activating time	Within 5 minutes only	Within 90 minutes	Within 90 minutes	Within 300 minutes
Gastric mucus & mucin production	Can increase production	No role	No role	No role
With Clopidogrol, Aspirin and Diazepam	Can be taken	Contraindicated	Contraindicated	Contraindicated
Pregnancy category	B1	B3	B3	B3



Labaid
pharma

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THANK YOU