

Gastroesophageal Reflux Disease(GERD)

Definition of GERD

- Montreal consensus panel (44 experts):

“a condition which develops when the **reflux** of stomach contents causes **troublesome symptoms** and/or **complications**”

- **Troublesome**—patient gets to decide when reflux interferes with lifestyle

Definition

- **American College of Gastroenterology (ACG)**
 - Symptoms OR mucosal damage produced by the abnormal reflux of gastric contents into the esophagus
 - Often chronic and relapsing
 - May see complications of GERD in patients who lack typical symptoms



Physiologic vs Pathologic

- Physiologic GERD
 - Postprandial
 - Short lived
 - Asymptomatic
 - No nocturnal sx
- Pathologic GERD
 - Symptoms
 - Mucosal injury
 - Nocturnal sx

RELATED ANATOMY AND PHYSIOLOGY:

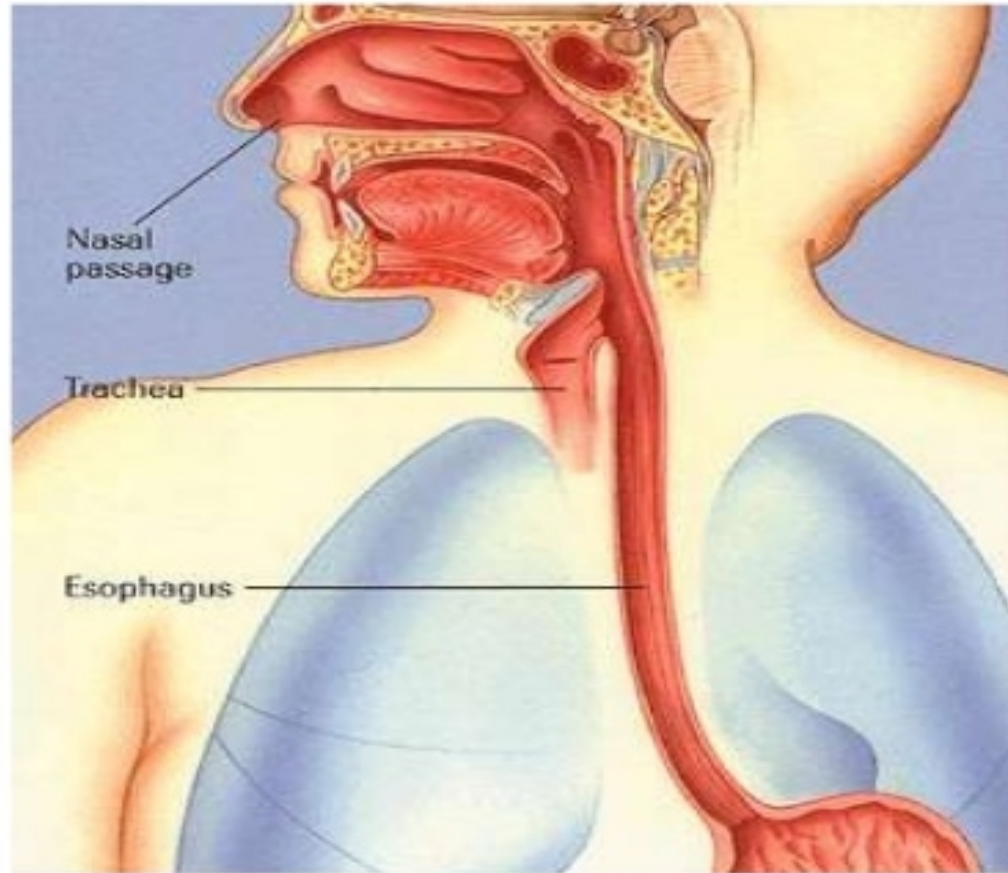
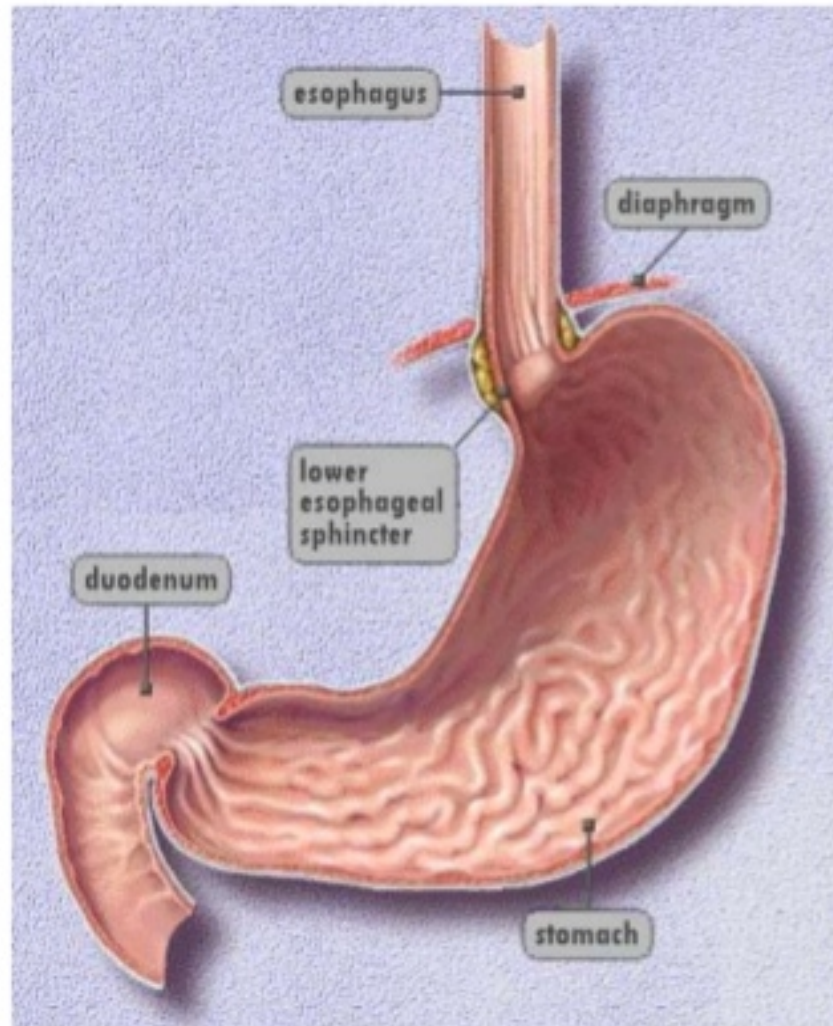


Image made available by a generous grant from Bristol-Myers Squibb



ETIOLOGY

TABLE 32–1. Foods and Medications That May Worsen GERD Symptoms

Decreased lower esophageal sphincter pressure

Foods

Fatty meal	Garlic
Carminatives (peppermint, spearmint)	Onions
Chocolate	Chili peppers
Coffee, cola, tea	

Medications

Anticholinergics	Isoproterenol
Barbiturates	Narcotics (meperidid morphine)
Benzodiazepines (diazepam)	Nicotine (smoking)
Caffeine	Nitrates
Dihydropyridine calcium channel blockers	Phentolamine
Dopamine	Progesterone
Estrogen	Theophylline
Ethanol	

Direct irritants to the esophageal mucosa

Foods

Spicy foods	Tomato juice
Orange juice	Coffee

Medications

Alendronate	Quinidine
Aspirin	Potassium chloride

Iron

Nonsteroidal anti-inflammatory drugs

ETIOLOGY

○ Dietary factors:



ETIOLOGY



wiseGEEK

LIFE-STYLES





❖ Anticholinergics

- ❖ beta-blocker
- ❖ bronchodialator
- ❖ Dopamine active drugs
- ❖ estrogen
- ❖ Narcotics containing codein
- ❖ nitrates
- ❖ Benzodiazepines
- ❖ progesterone,
- ❖ calcium channel blockers

ETIOLOGY

- Pregnancy
- Endocrine disorder
- Autoimmune disorder
- Neuromuscular disorder
- Anatomical disorder

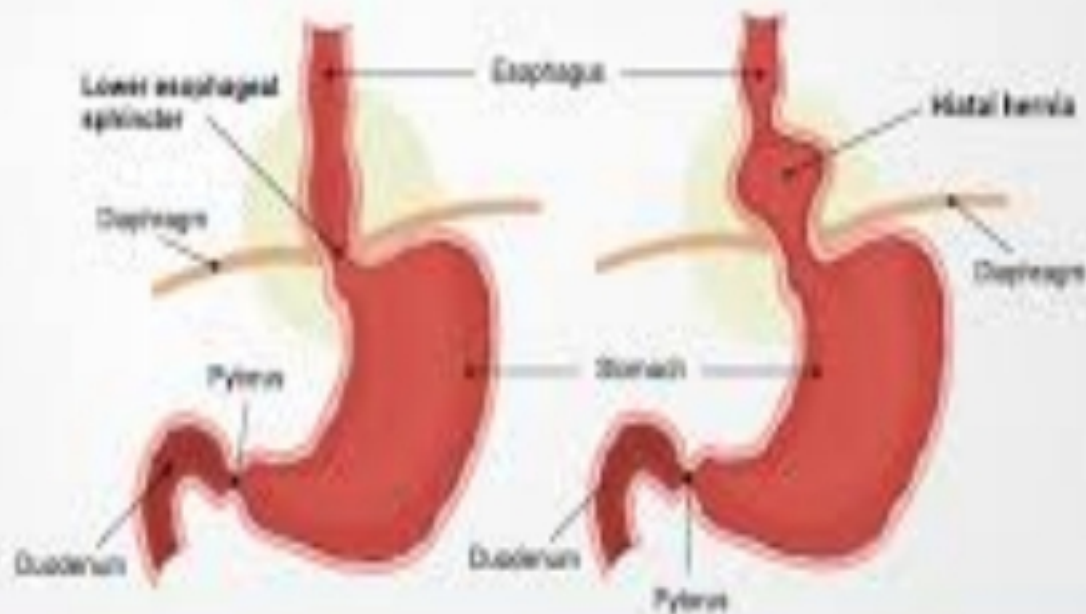


Hiatal hernia



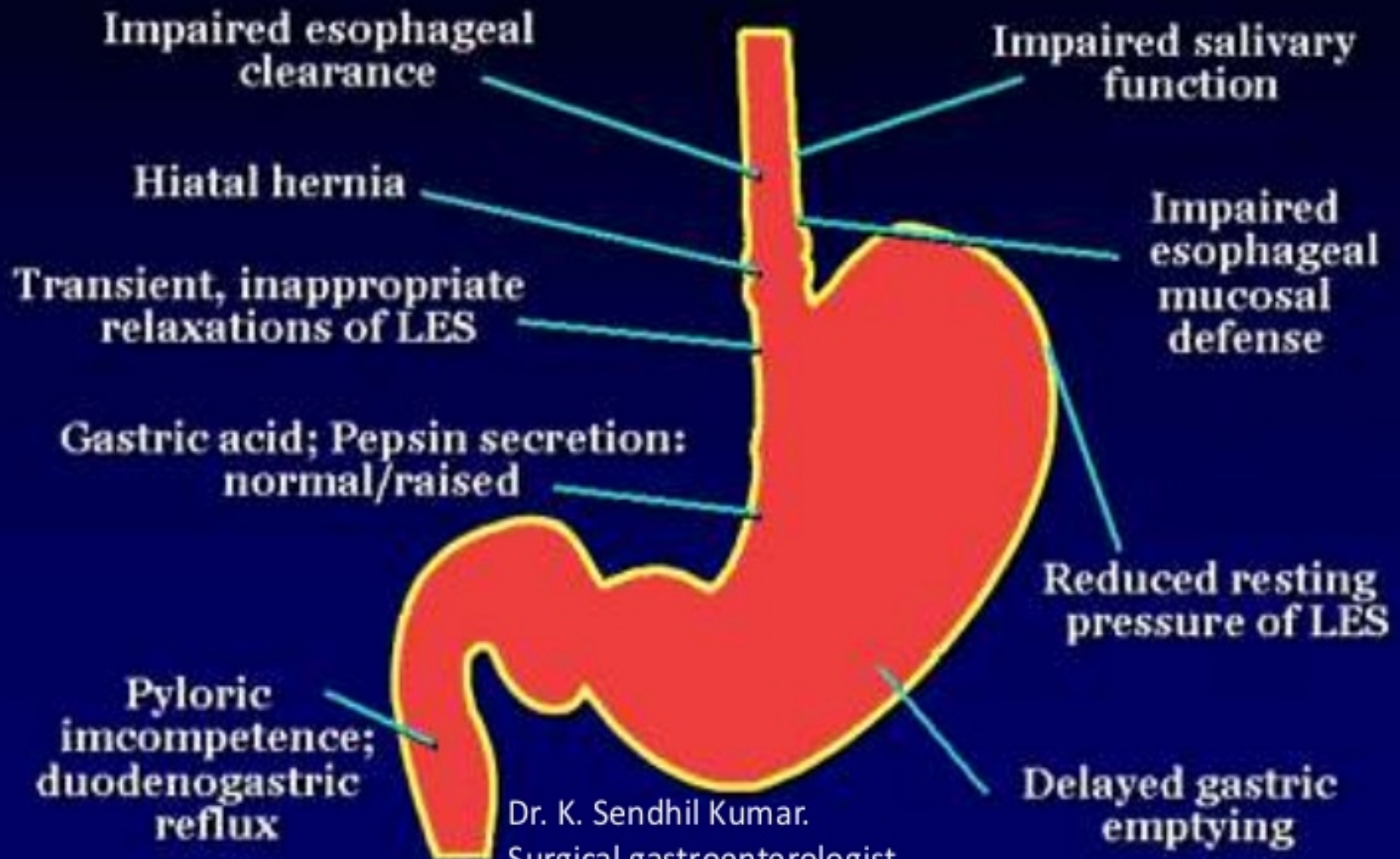
NORMAL

HIATAL HERNIA



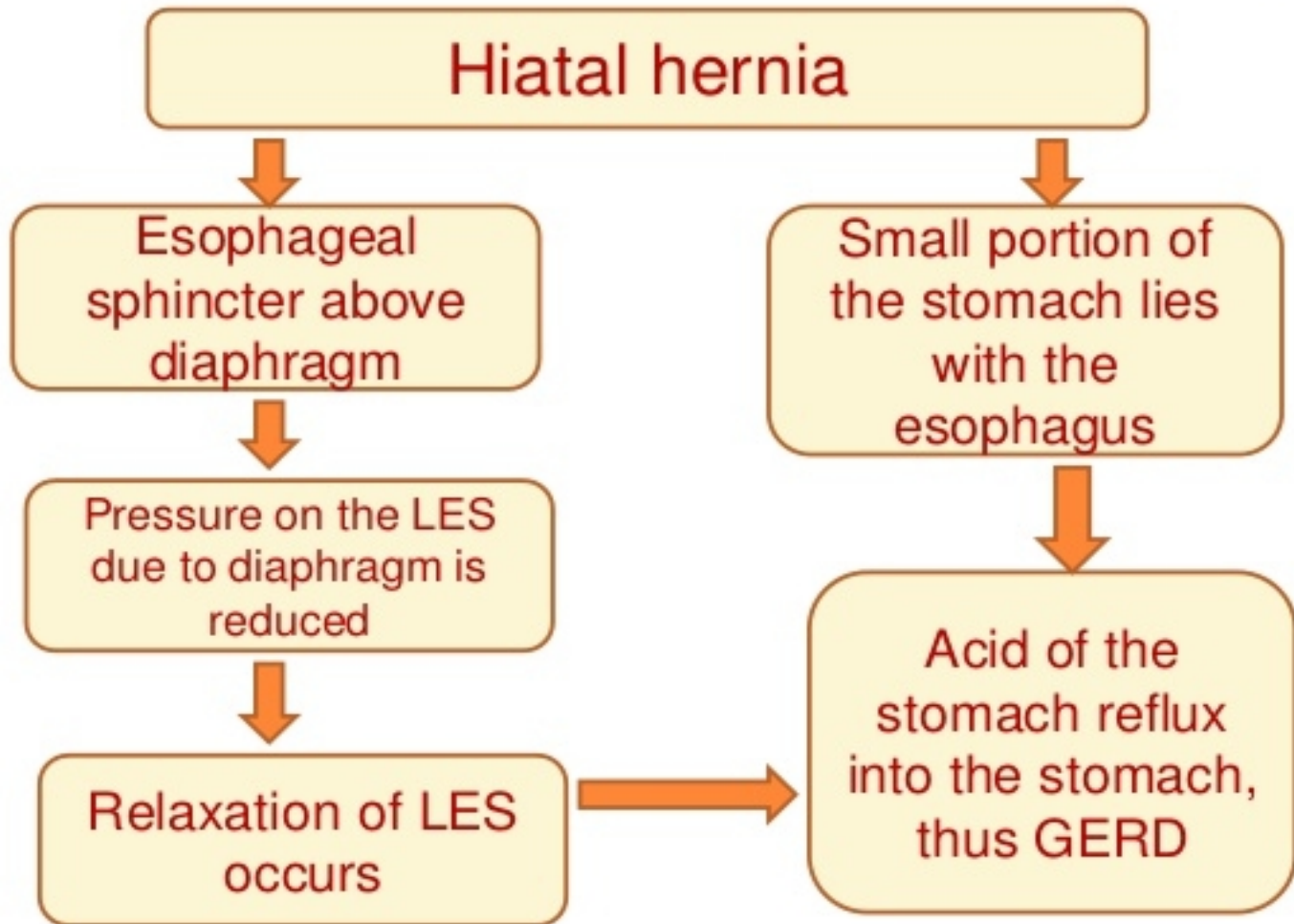
Everything you need to know about Hiatal Hernia

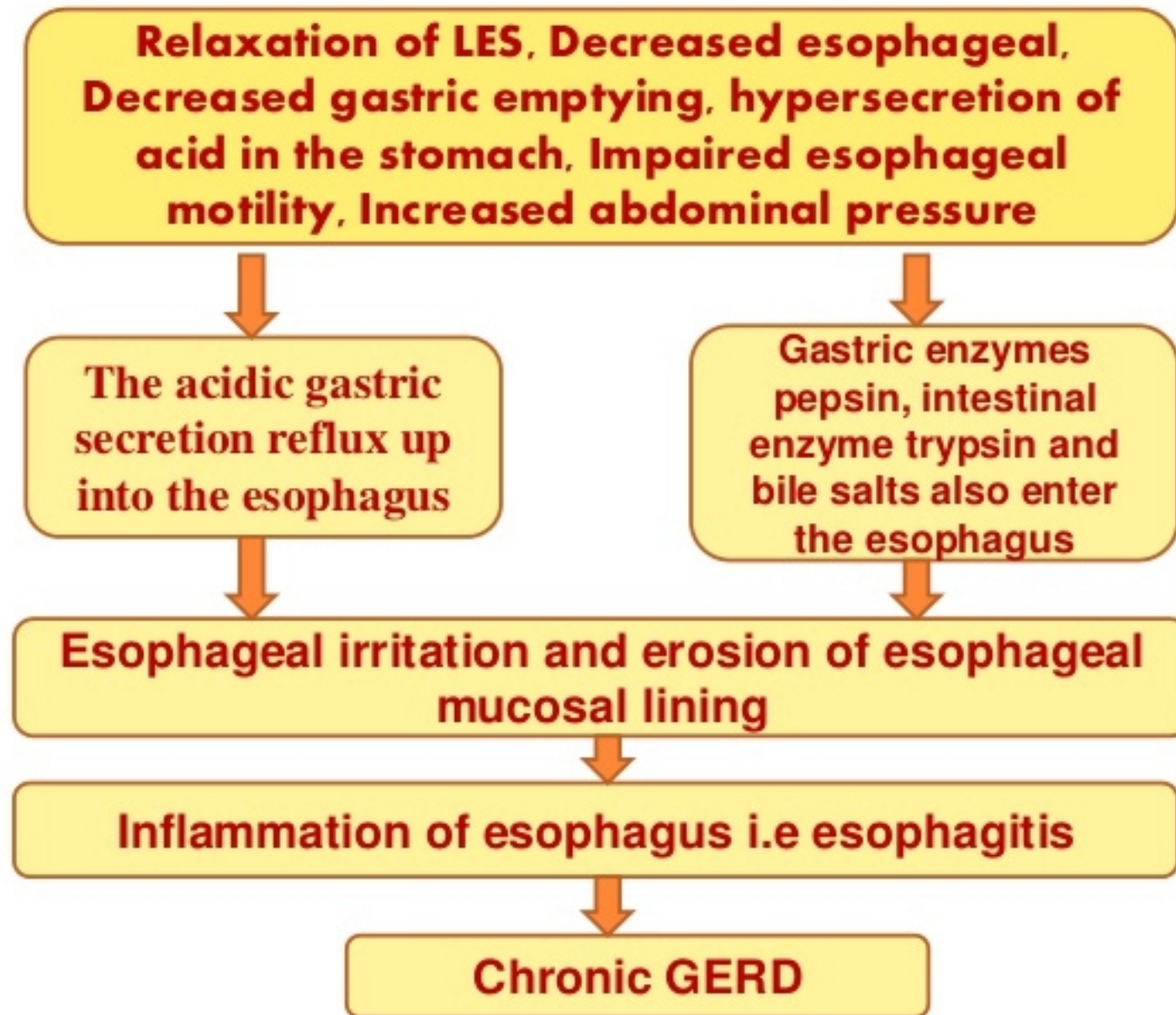
Pathophysiology of GERD



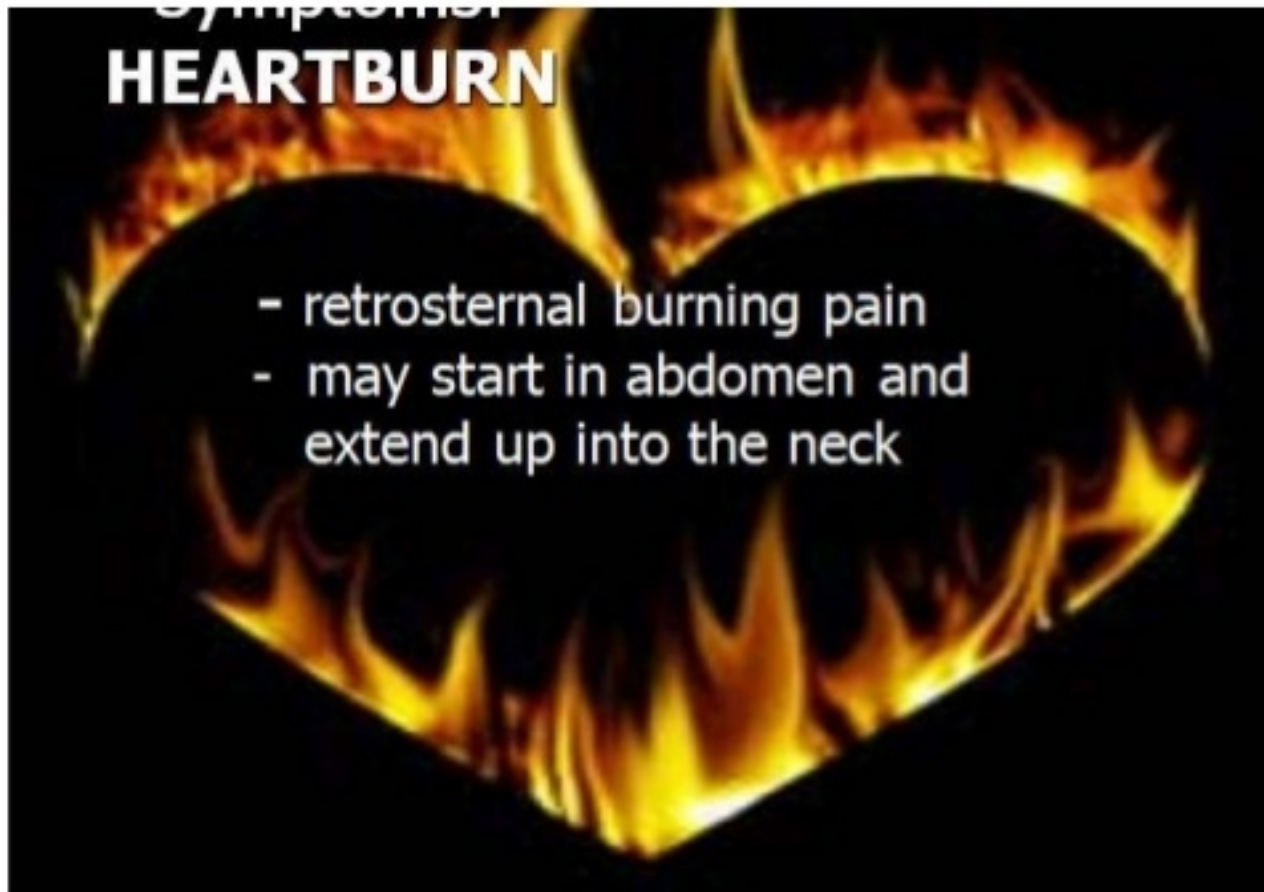
Dr. K. Sendhil Kumar.
Surgical gastroenterologist
Gateway clinics & hospital
recnotes.com

ETIOPATHOLOGY OF GERD FROM HIATAL HERNIA





CLINICAL MANIFESTATION:



CLINICAL MANIFESTATION:

Globus
sensation



Regurgita
tion

Hypersaliva
-tion

Otolaryngeal
symptom

Respiratory
symptoms

TABLE 32–2. Clinical Presentation of GERD

Typical symptoms: May be aggravated by activities that worsen gastroesophageal reflux such as recumbent position, bending over, or eating a meal high in fat.

- Heartburn
- Water brash (hypersalivation)
- Belching
- Regurgitation

Atypical symptoms: In some cases, these extraesophageal symptoms may be the only symptoms present, making it more difficult to recognize GERD as the cause, especially when endoscopic studies are normal.

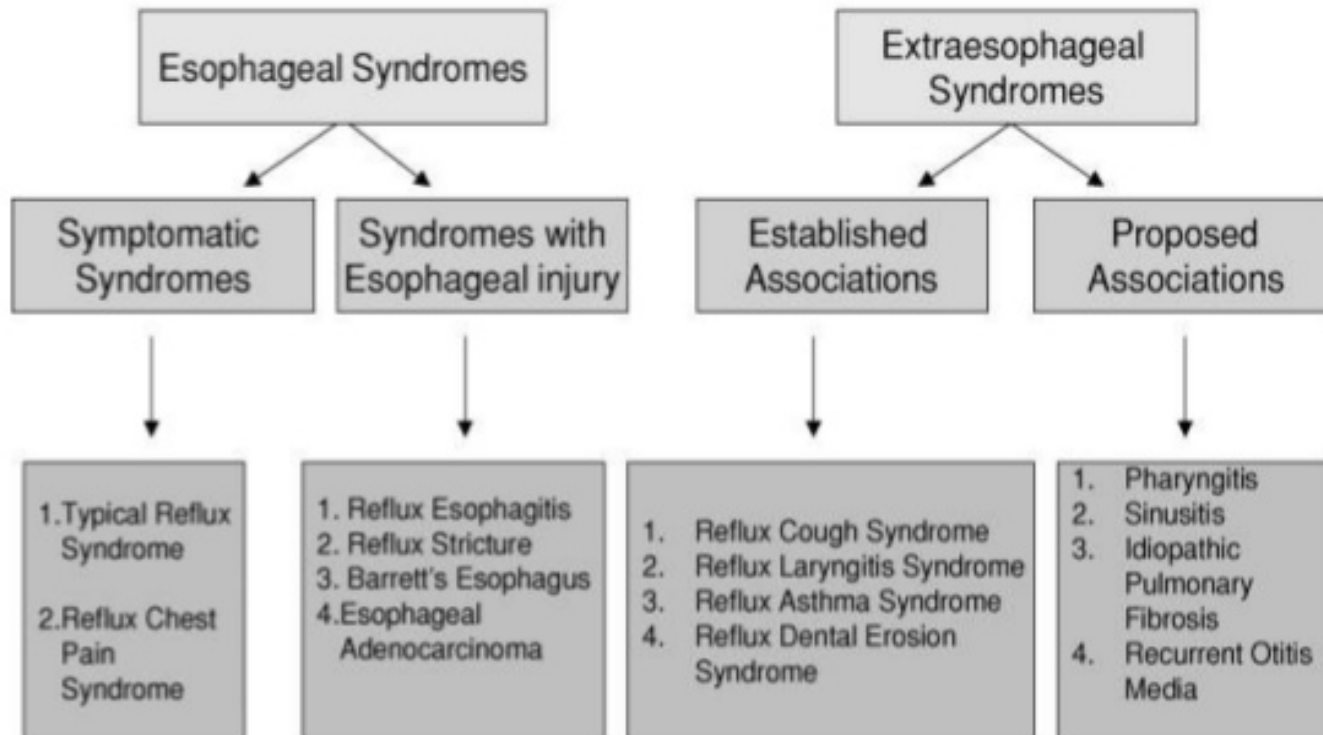
- Nonallergic asthma
- Chronic cough
- Hoarseness
- Pharyngitis
- Chest pain
- Dental erosions

Complicated symptoms: These symptoms may be indicative of complications of GERD such as Barrett's esophagus, esophageal strictures, or esophageal cancer.

- Continual pain
- Dysphagia
- Odynophagia
- Bleeding
- Unexplained weight loss
- Choking

Montreal Classification of GERD

GERD is a condition which develops when the reflux of gastric content causes troublesome symptoms or complications



From Vakil N et al. Am J Gastroenterol 2006;101:1900-20.

Complication

- Barrets Esophagus

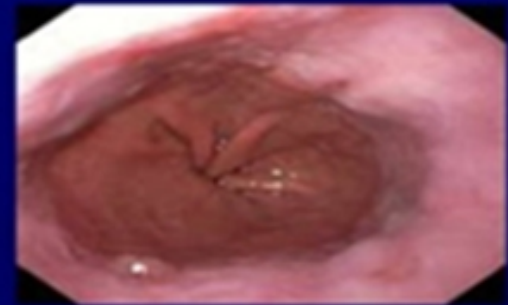
Barrett's esophagus consists of a change in the normally squamous lining of the lower esophagus to columnar epithelium (metaplasia)

The importance of Barrett's esophagus is its significantly increased risk of esophageal cancer

The Los Angeles Classification System for the endoscopic assessment of reflux oesophagitis

GRADE A:

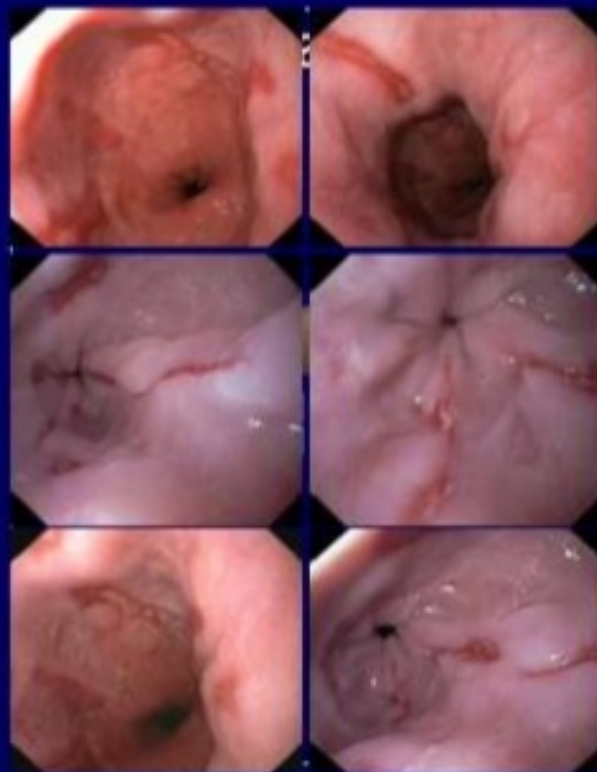
One or more mucosal breaks no longer than 5 mm, non of which extends between the tops of the mucosal folds



*The **Los Angeles Classification System** for the endoscopic assessment of reflux oesophagitis*

GRADE B:

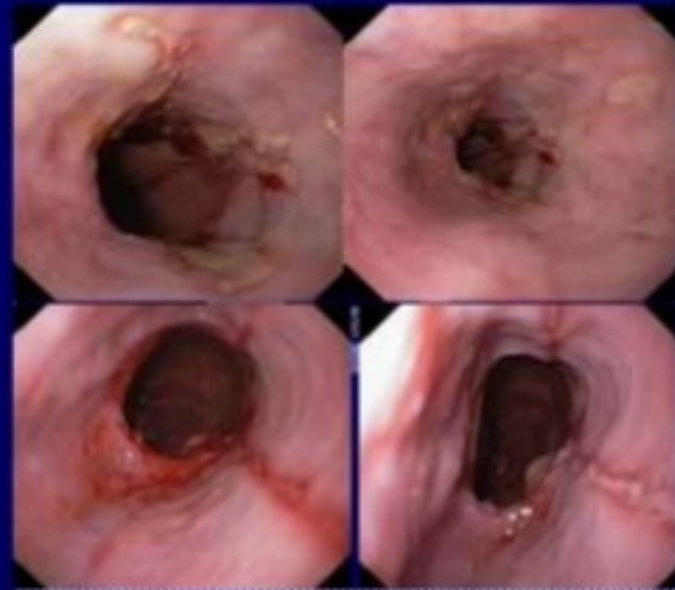
One or more mucosal breaks more than 5 mm long, none of which extends between the tops of two mucosal folds



*The **Los Angeles Classification System** for the endoscopic assessment of reflux oesophagitis*

GRADE C:

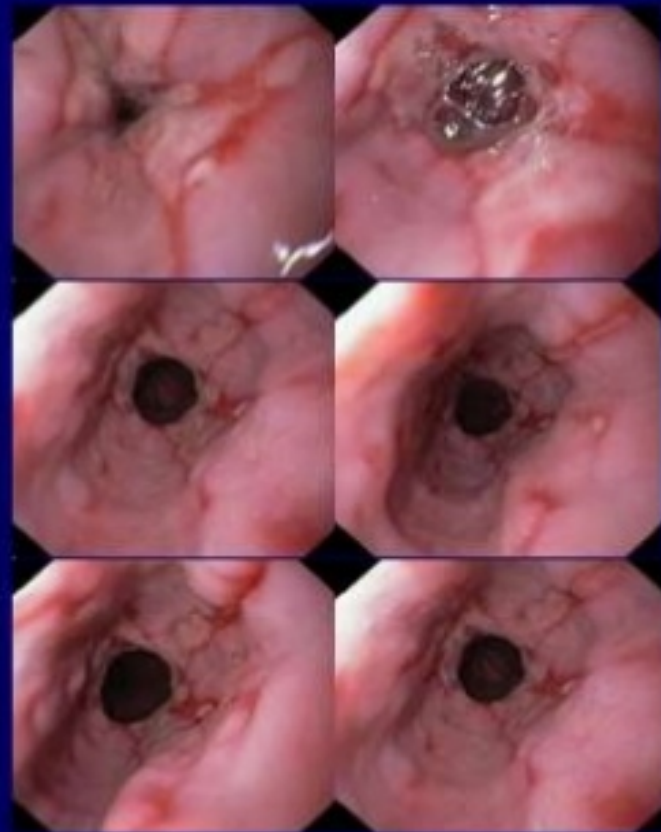
Mucosal breaks that extend between the tops of two or more mucosal folds, but which involve less than 75% of the oesophageal circumference

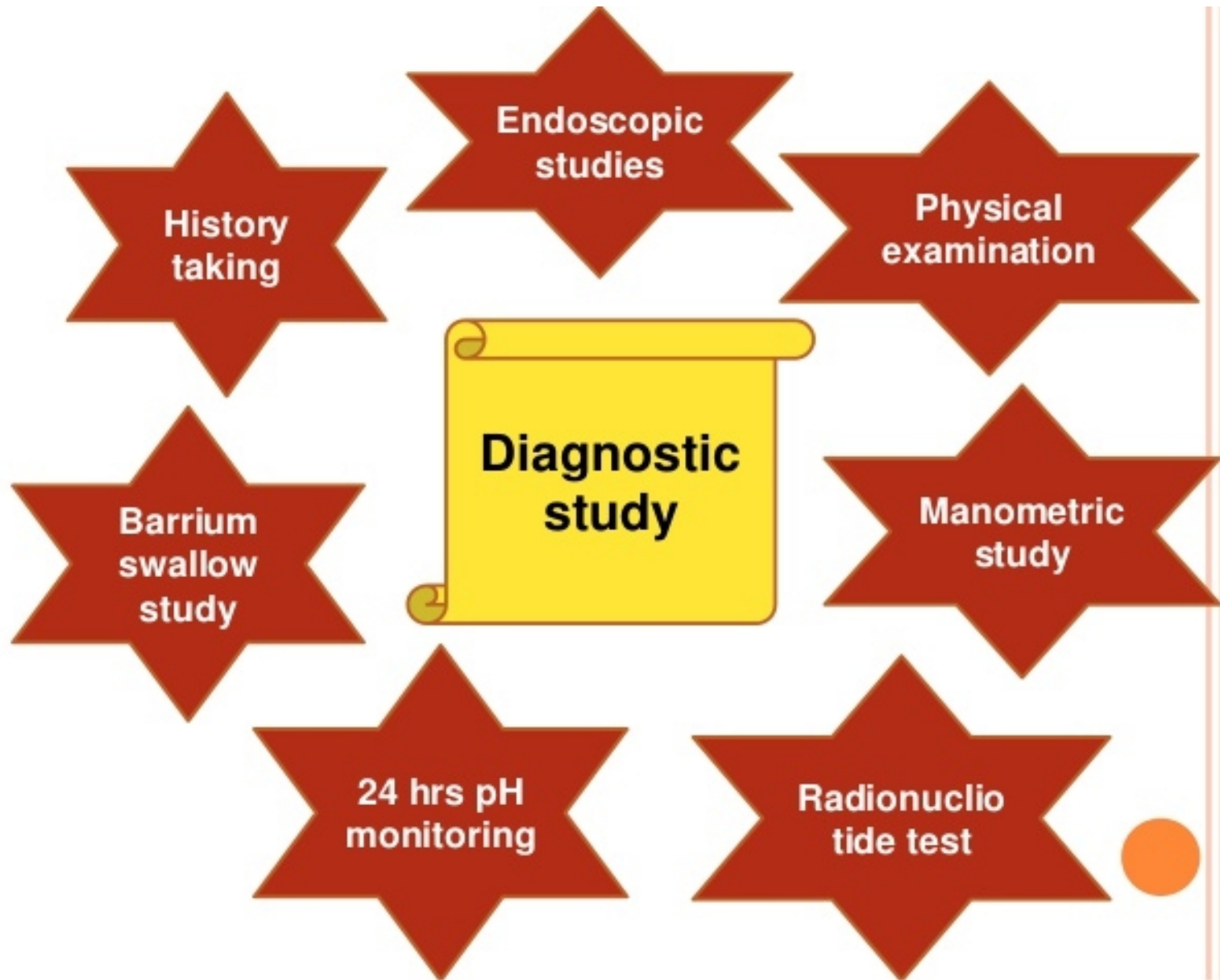


*The **Los Angeles Classification System** for the endoscopic assessment of reflux oesophagitis*

GRADE D:

Mucosal breaks which involve at least 75% of the oesophageal circumference





- Radionuclide Esophageal Transit Test-
radionuclide esophageal transit test is a simple noninvasive screening method to detect esophageal dysmotility or gastroesophageal reflux

- Barium Swallow test- A barium swallow test is a special type of imaging test that uses barium and X-rays to create images of your upper gastrointestinal (GI) tract. Your upper GI tract includes the back of your mouth and throat (pharynx) and your esophagus. Barium swallow isn't a surefire method of diagnosing GERD. Only one out of every three people with GERD has esophageal changes that are visible on X-rays



COLLABORATIVE MANAGEMENT



Treatment

- *Goals of therapy*
 - Symptomatic relief
 - Heal esophagitis
 - Prevent & Treat complications
 - Maintain remission

