Gastrointestinal Disorders

Objectives

- **Prioritize nursing interventions used in the management of various GI disorders.**
- **Compare and contrast the presentation of the following:**
  - **Gastric and Duodenal Ulcers**
  - **Crohn's and Ulcerative Colitis**
  - **Upper and Lower GI Bleeds**
- **Analyze the effectiveness of nursing interventions designed to decreased morbidity and mortality related to upper and lower GI bleeds (including bleeding esophageal varices).**
- **Identify the role of various pharmacologic agents in both causing and treating GERD and GERD like symptoms.**
- **Summarize the educational points necessary to achieve lifestyle management of various GI disorders.**

Disorders to Know

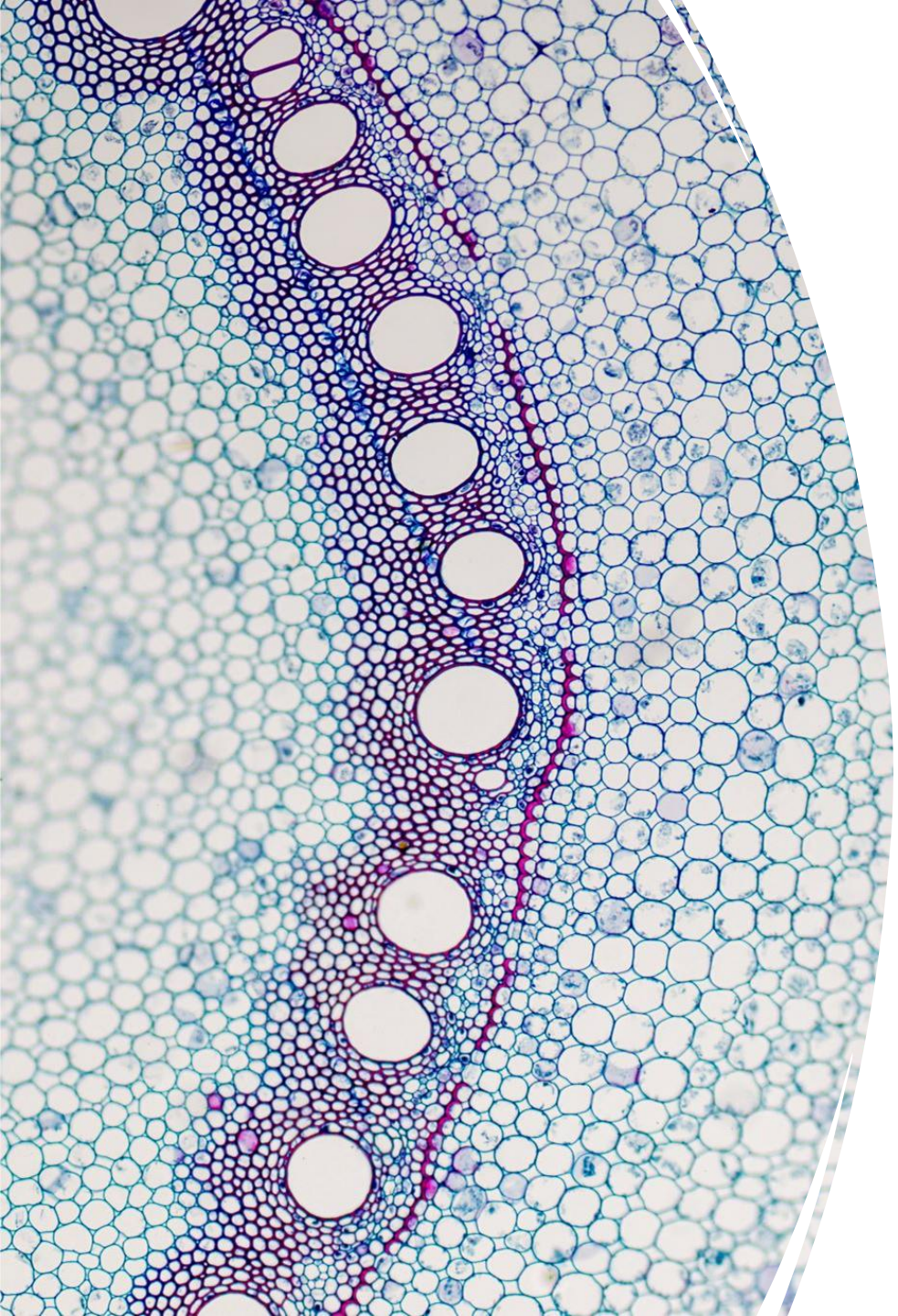
Upper GI Tract

- GERD
- Hiatal Hernia
- PUD
- Upper GI Bleed
- Esophageal Varices

Lower GI Tract

- Lower GI Bleed
- Irritable Bowel Disease
  - Crohn's vs. Ulcerative Colitis
- Diverticulitis

Gastroesophageal Reflux Disease



Definition

- **GERD develops when the reflux of stomach contents into the esophagus causes troublesome symptoms and/or complications.**

- **2 main classification of symptoms**
  - **Esophageal**
  - **Extraesophageal**

Risk Factors

Increased Abdominal Pressure

- Pregnancy
- Obesity
- Ascites
- Tumors
- Heave Lifting

Alcohol Use

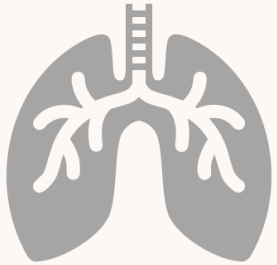
Hiatal Hernia

Certain Drugs

Complications

Strictures

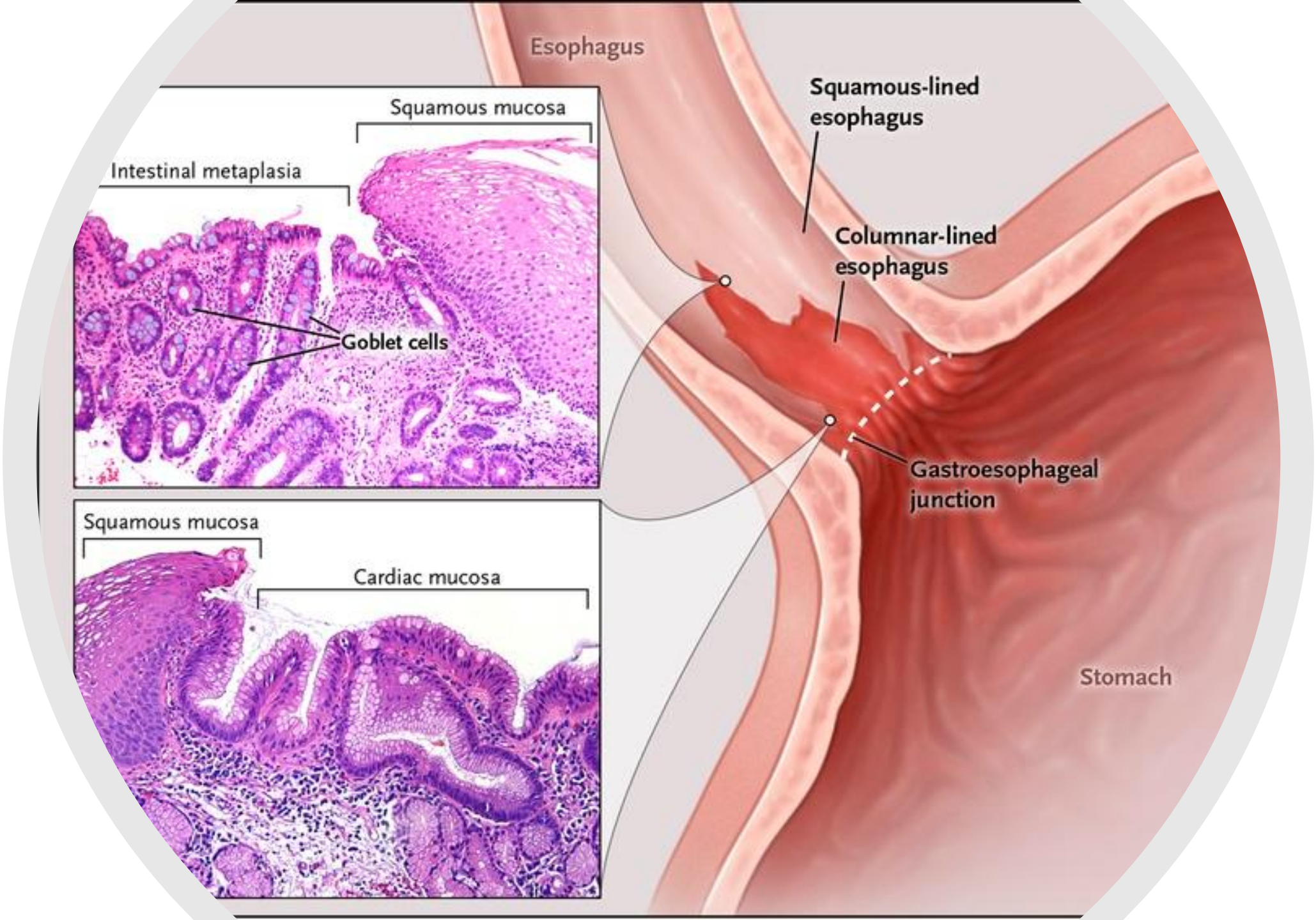
Scar tissue → spasms → edema → narrowing



Barret's Esophagus

Metaplasia that occurs secondary to exposure to HCl.

Pre-cursor for adenocarcinoma.


Esophagus
Squamous-lined esophagus
Columnar-lined esophagus
Gastroesophageal junction
Stomach
Squamous mucosa
Intestinal metaplasia
Goblet cells
Squamous mucosa
Cardiac mucosa

Management of GERD

Lifestyle interventions

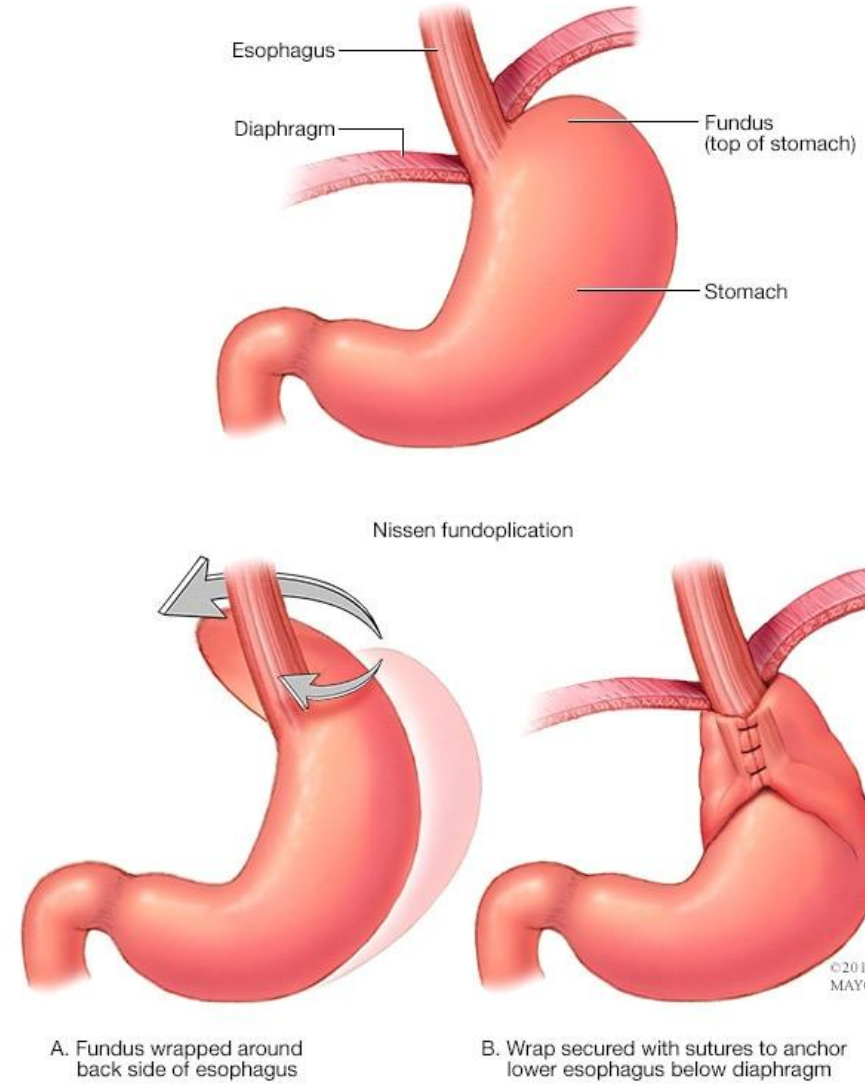
- Losing weight
- Removing dietary triggers
- Elevate the HOB

Medications

- 1st: PPI for 8 weeks.
- 2nd: Histamine Blockers

Endoscopy

Laparoscopic Fundoplication



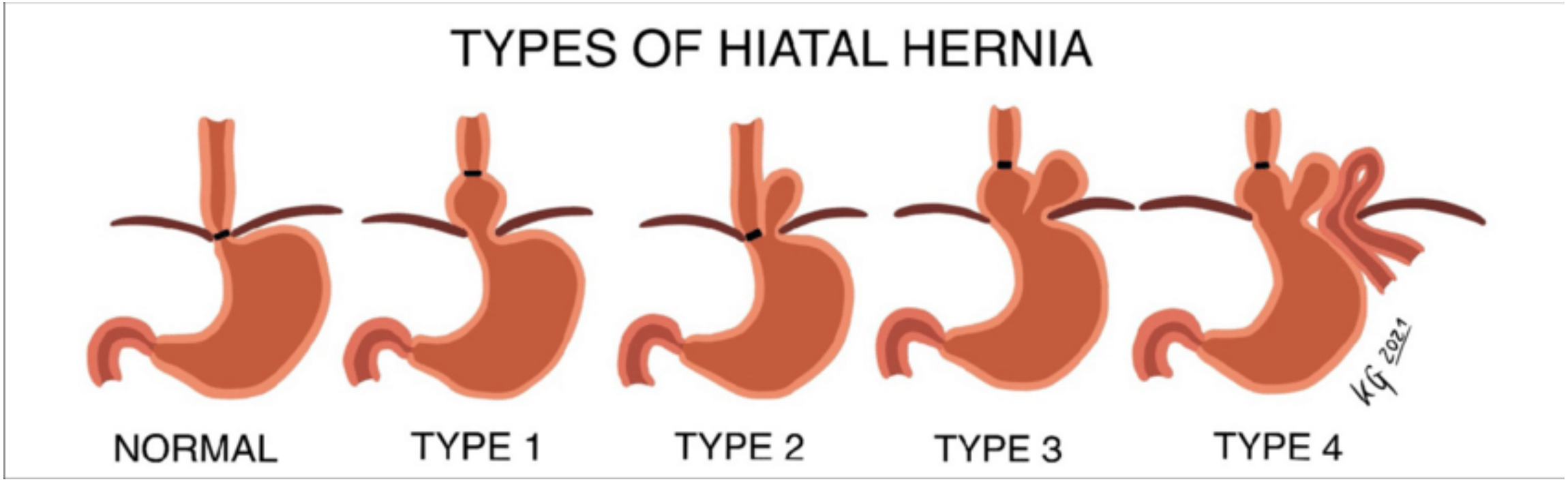
Patient Education

- **Avoid things that can cause esophogeal irritation.**
- **Eat a low-fat, high fiber diet.**
- **Avoid eating or drinking for 2 hours before bed.**
- **Do not lie flat for at least 2 hours after a meal.**
- **Elevate HOB**
- **Avoid trigger medications.**

Hiatal hernia

Definition

- **Herniation of the stomach through esophageal hiatus of the diaphragm.**
- **Often found during the work up for GERD.**
- **Four Types**
  - **Type 1 (85-95% of all hernias)**
  - **Types 2-4 (other% of hernias)**


TYPES OF HIATAL HERNIA
NORMAL
TYPE 1
TYPE 2
TYPE 3
TYPE 4
KG 2021

Management

Treat the reflux symptoms!

Lifestyle changes

Medications (PPIs)

Surgery???

Type 1 without reflux→ NO

Type 1 with symptoms → Maybe

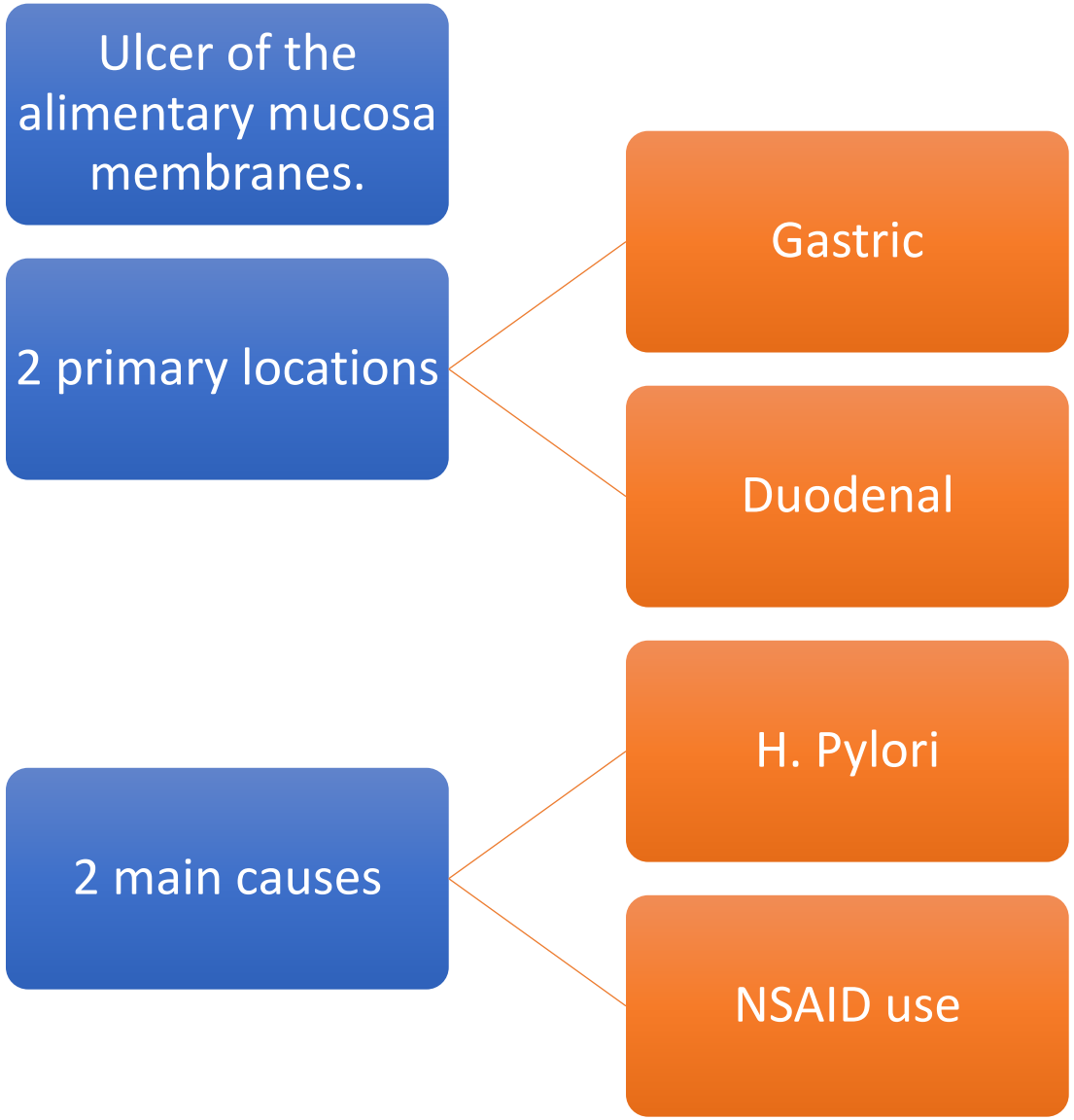
Types 2-4 with symptoms→ YES

Complications

- Type 1 → Gerd
- Types 2-4 → Ischemia

Peptic Ulcer Disease

Definition


Ulcer of the alimentary mucosa membranes.
2 primary locations
Gastric
Duodenal
2 main causes
H. Pylori
NSAID use

	Gastric Ulcer	Duodenal Ulcer
Age	50-70	20-50
Family Hx	Usually Negative	Usually Positive
Stress Factors	Increased	Average to no-stress involvement
Acid Production	Normal to low	Increased
Associated Gastritis	Common	Seldom
H. Pylori	Maybe	Often (95-100%)
Pain	UQ Intermittent **Made worse by food.**	UQ Intermittent **Relieved by food**
Clinical Course	Chronic Ulcer	Remissions & Exacerbations

Management

- PPI therapy
- STOP NSAIDS!
- Treat H. Pylori
- Endoscopy

H Pylori Quadrupole Therapy

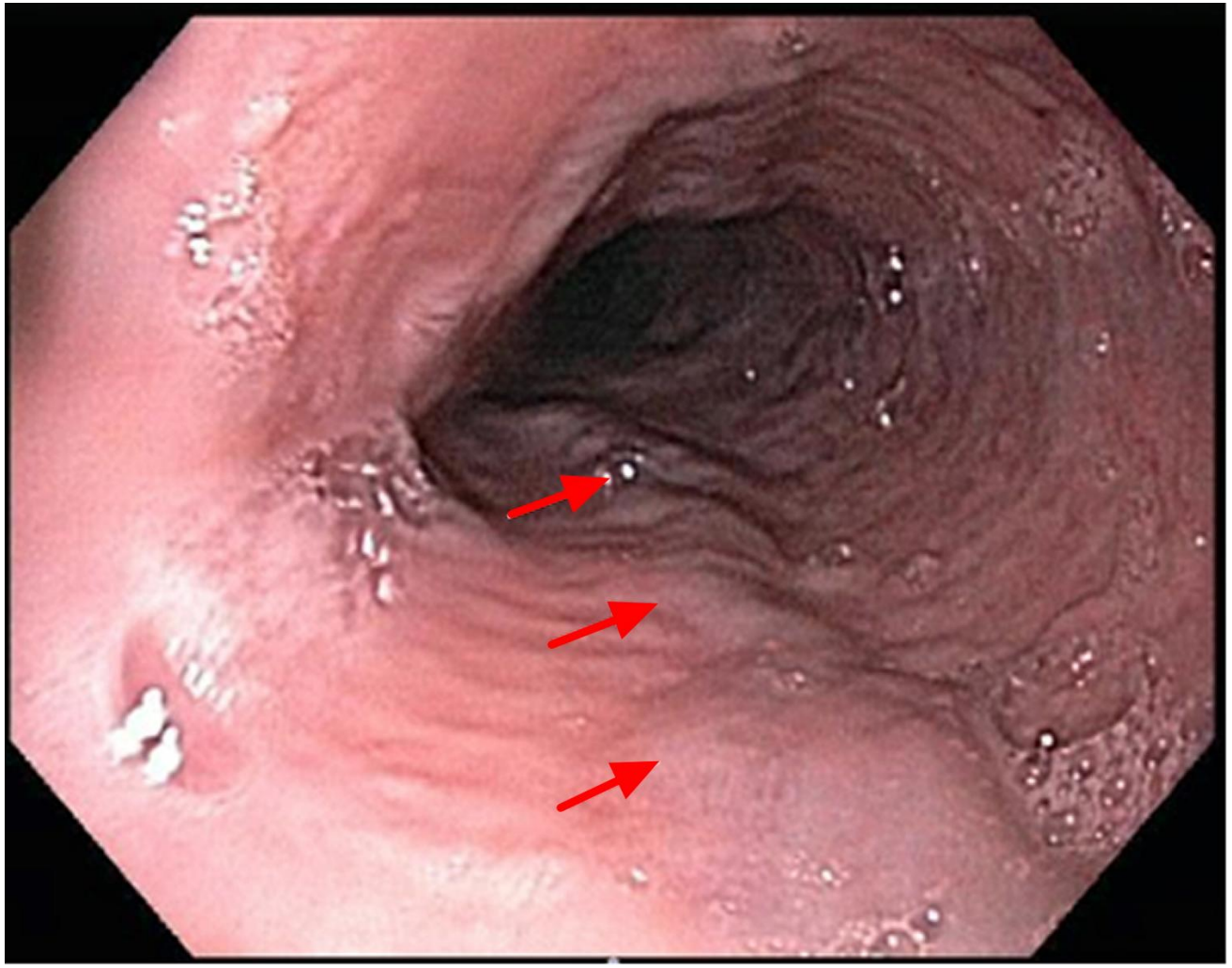
- **bismuth quadruple therapy for 10-14 days**
  - **standard-dose proton pump inhibitor (PPI) orally twice daily**
  - **bismuth subcitrate 120-300 mg or bismuth subsalicylate 300 mg orally 4 times daily**
  - **metronidazole 250 mg orally 4 times daily or 500 mg orally 3 or 4 times daily**
  - **tetracycline 500 mg orally 4 times daily**

- **What are some teaching points here or considerations that we need to keep in mind???**

Esophageal Varices

Definition

Abnormal, enlarged veins in the esophagus. Most commonly due to portal hypertension.



Presentation

Signs and symptoms of liver failure.

Endoscopy needed.

Acute presentation

- BLEEDING!!!!

Acute Variceal Hemorrhage

Fluids, fluids and more fluids!!!!

-pressors to maintain blood pressure

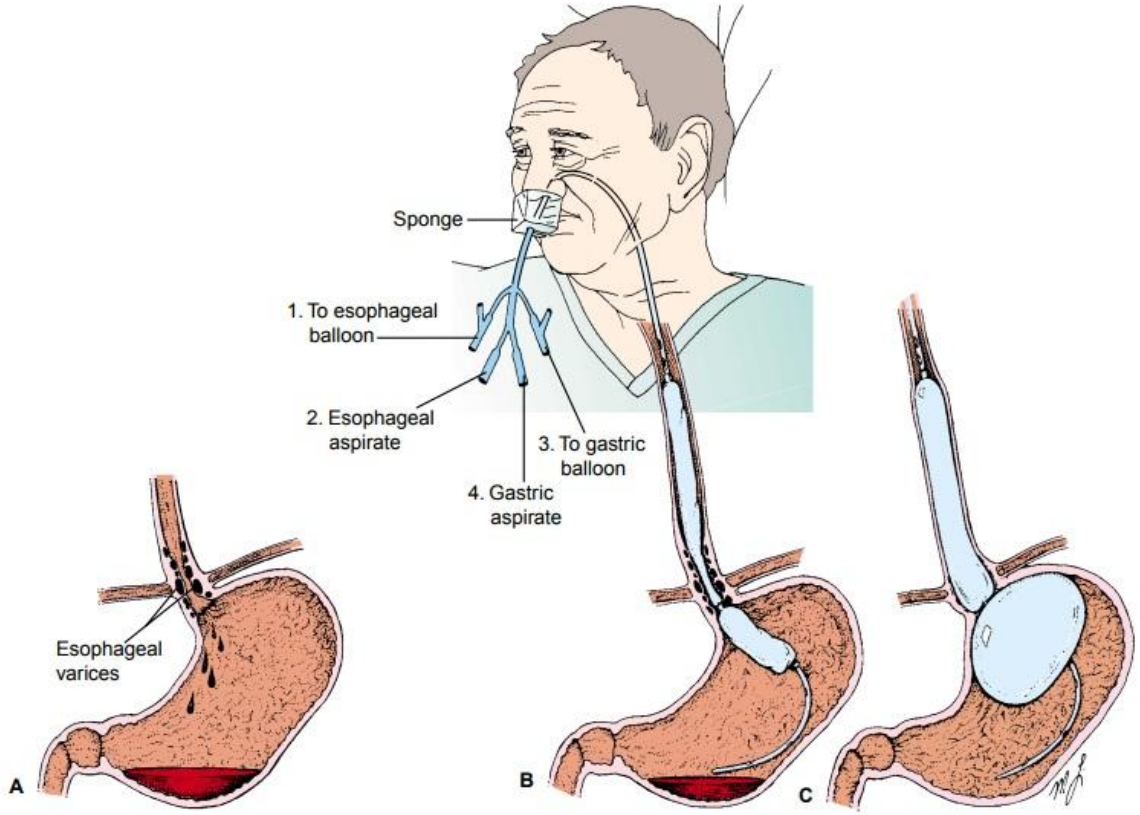
- Octreotide

Short course IV antibiotic therapy

Surgery

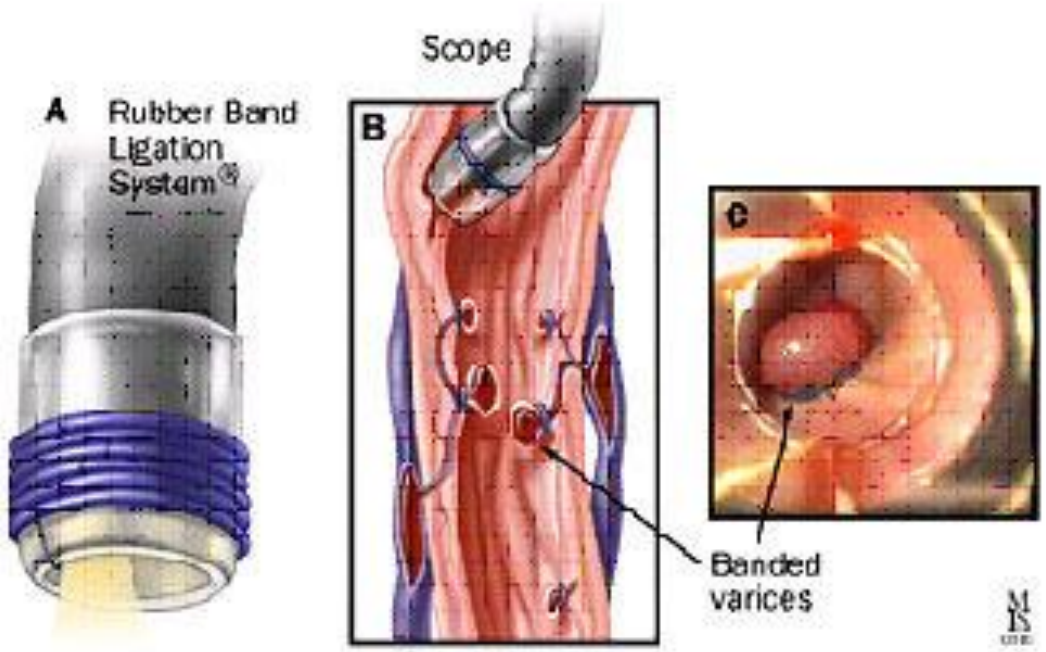
Procedures for Esophageal Varices

Balloon Tampanode



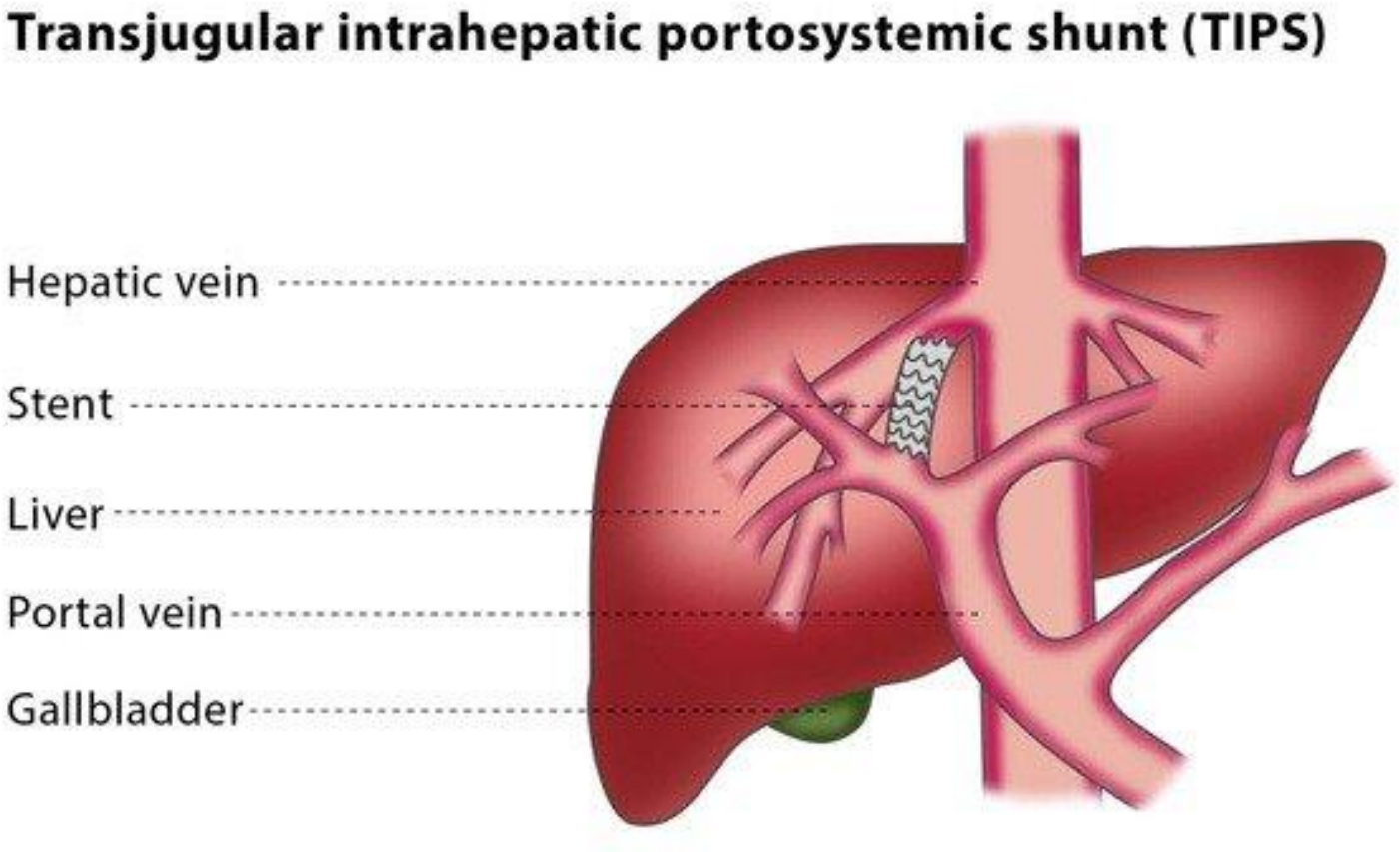
Procedures for Esophageal Varices

Variceal Ligation



Transjugular Intrahepatic Portosystemic Shunt

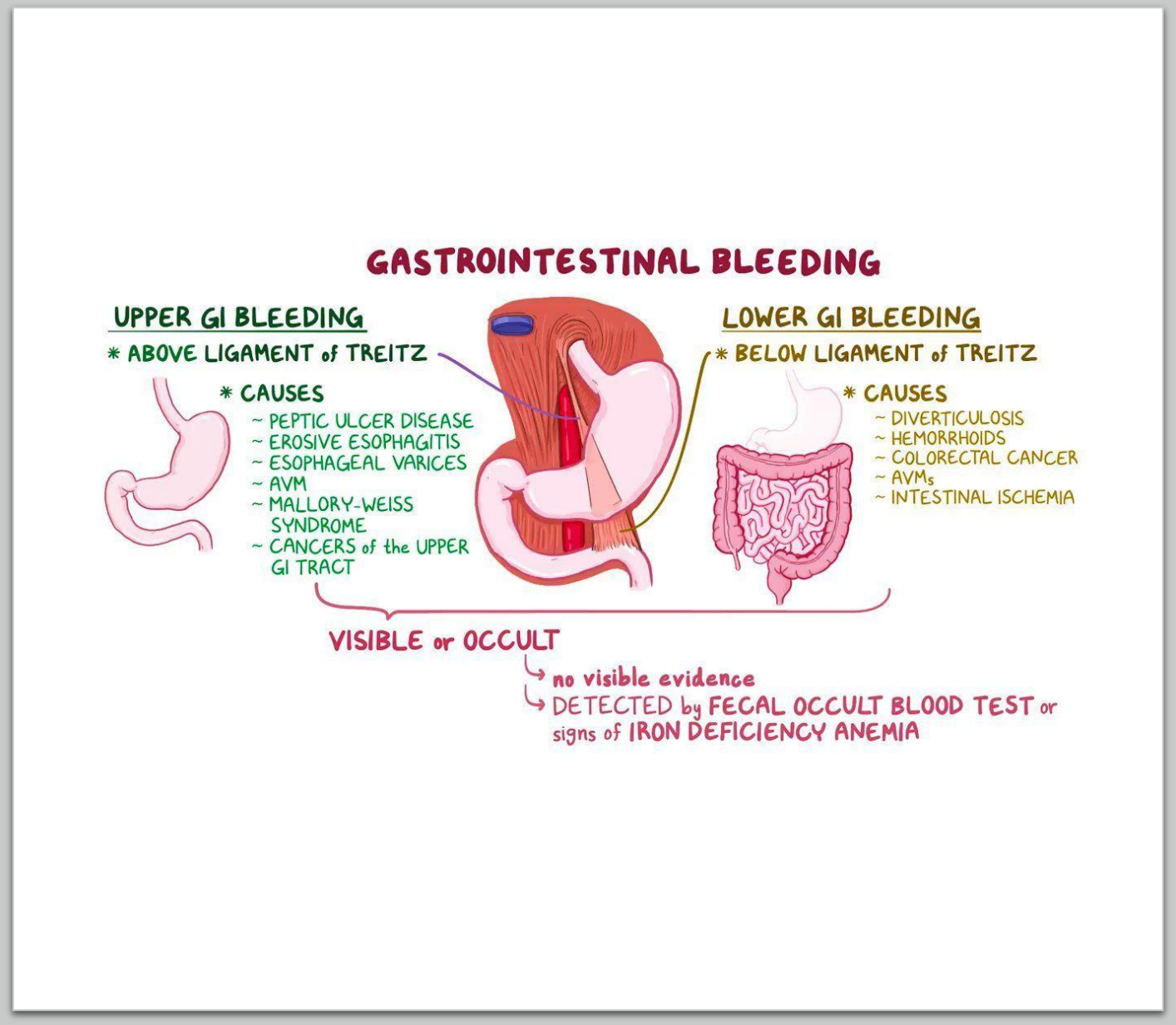
Procedures for Esophageal Varices



Upper GI Bleed

Definition

- **Acute nonvariceal upper gastrointestinal (GI) bleeding is a medical emergency involving bleeding from a site in the GI tract that is proximal to the ligament of Treitz, most commonly within the reach of an adult upper endoscope.**



Presentation

S/Sx Hypovolemia or anemia

- Lightheadedness
- Weakness
- Hypotension
- Tachycardia
- cold hands/feet

S/Sx of bleeding

- Hematemesis
- Coffee ground emesis
- Melena
- Hematochezia (in the setting of rapid upper GI bleeding)

Evaluation

Assess volume status

Assess coagulation

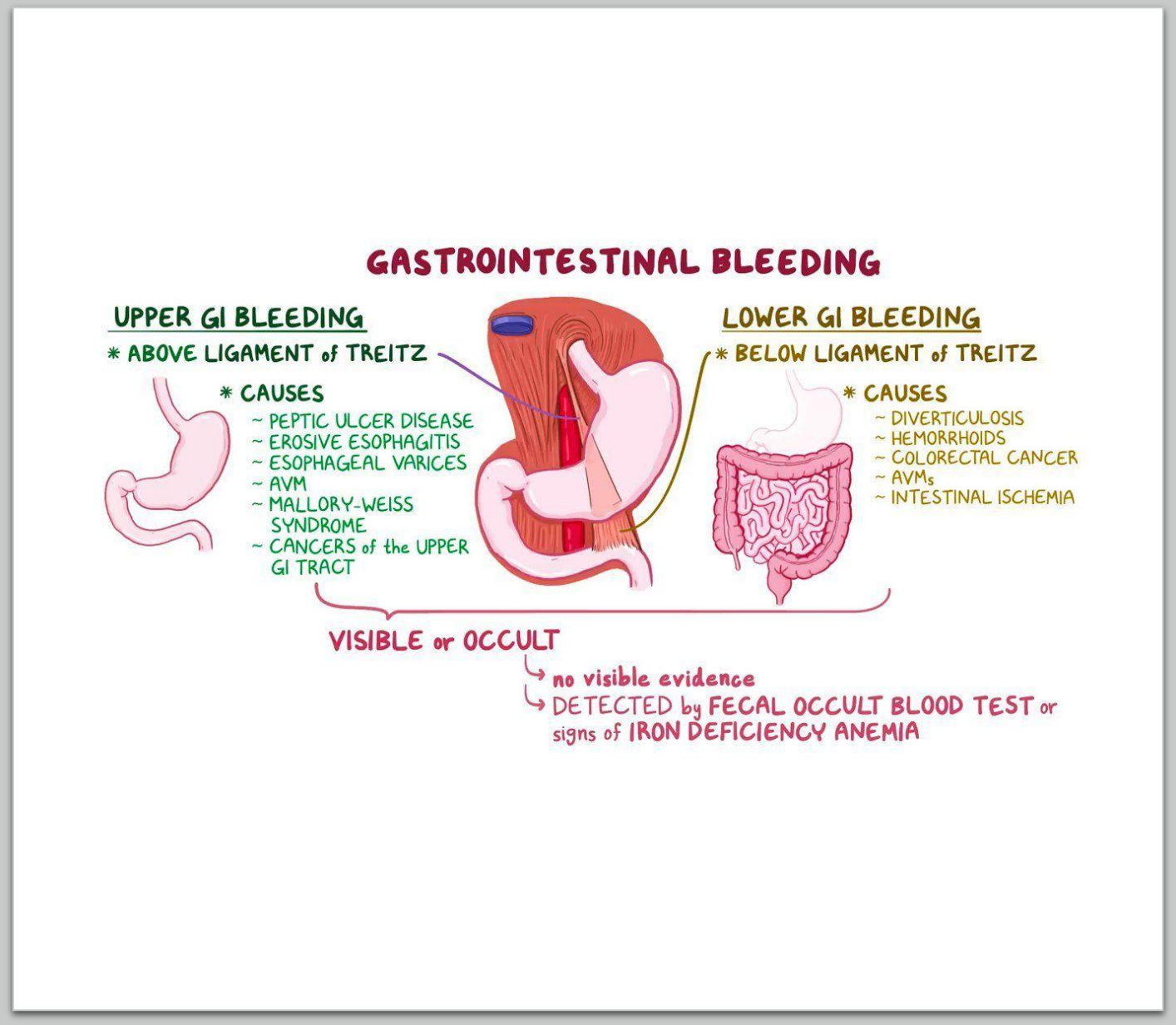
Nursing Interventions

Frequent Vitals	Blood Transfusion Considerations	NG Tubes NOT recommended.
	• Type and Cross Match.	

Lower GI Bleed

Definition

- **Acute lower GI bleeding is the acute loss of blood from an intestinal source distal to the ligament of Treitz.**



Causes of lower GI bleeds

Common

- colonic diverticulosis
- anal fissures
- Hemorrhoids
- Angiodysplasia
- inflammatory bowel disease
- ischemic colitis
- postpolypectomy bleeding.

Not as common

- colon cancer
- colon polyps
- radiation proctitis
- arteriovenous malformations
- endometriosis

Presentation

- painless hematochezia
- bright red blood per rectum → melena
- Occult blood in stool.

Nursing Considerations

- Ensure circulatory support.
- Frequent Vitals
  - Orthostatic hypotension
- Blood work
- Fecal Occult Blood Testing
  - False positives
  - False negatives

Irritable Bowel Syndrome

Definition

characterized by chronic and/or recurrent abdominal pain or discomfort and altered bowel habits. No definitive etiology.

pain or discomfort occurs

- At least one day/week
- for at least 6 months since onset
- Need two of the following
  - pain changes with defecation
  - changes occur in bowel frequency
  - changes occur in stool appearance (form).

IBS Red Flags

- unexplained weight loss
- rectal bleeding
- anemia
- mass
- family history of colon or ovarian cancer
- age > 60 years old

Two Sub-Types

Crohn's

- Cobble Stone Inflammation
- Crampy abdominal pain
- Complications: fistulas, abscesses, obstruction, malnutrition

Ulcerative Colitis

- Continuous Inflammation
- Bloody Diarrhea
- Complications: hemorrhages, toxic megacolon.

Ulcerative Colitis VS Crohn's Disease

Location of inflammation

Ulcerative Colitis: Limited to the **large intestine/colon**

Crohn's Disease: **Anywhere in GI tract**, (from gum to bum)

Pattern of inflammation

Ulcerative Colitis: **Inflammed areas are continuous** with no patchiness

Crohn's Disease: **Patches of inflammation** found in large sections of the bowel

Appearance of inflammation

Ulcerative Colitis: Typically in the **lower left abdomen**

Crohn's Disease: Typically in the **lower right abdomen**

Location of Pain

Ulcerative Colitis: **Ulcers penetrate the inner lining** of the abdomen only

Crohn's Disease: **Ulcers penetrate the entire thickness** (several layers) of the abdominal lining

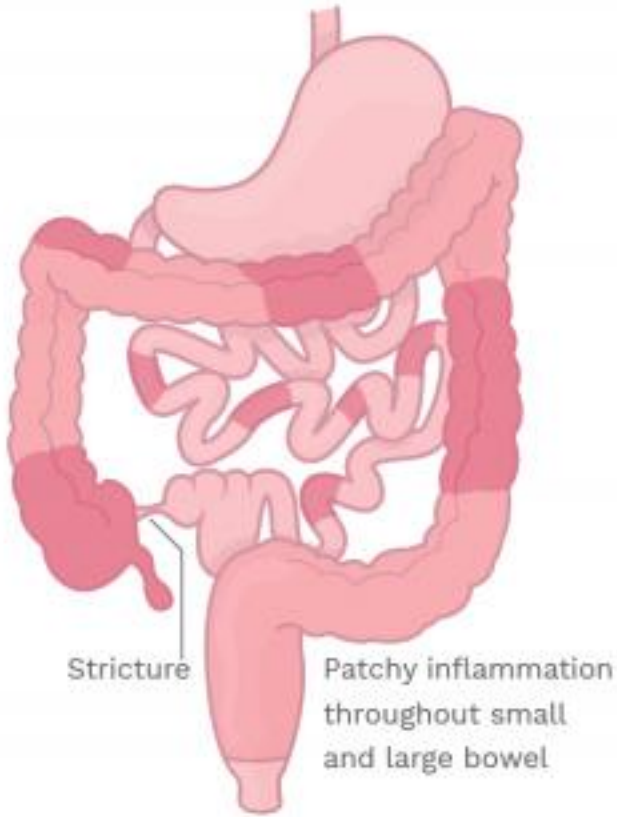
Bleeding

Ulcerative Colitis: **Common** during bowel movements

Crohn's Disease: **Uncommon**

To learn more visit **CDHF.ca**

CDHF Canadian Digestive Health Foundation



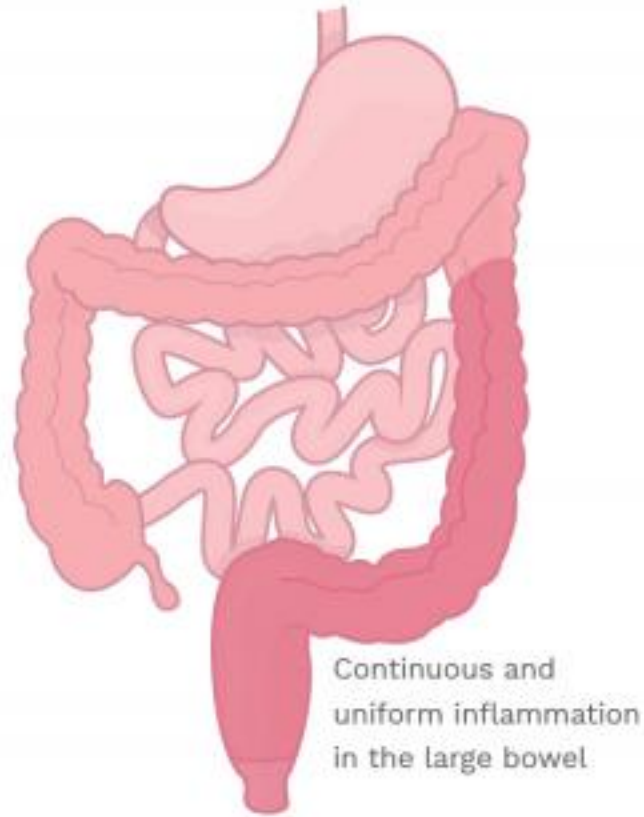
Crohn's Disease

Age of onset: 15–35 years and 55–70 years

Symptoms: Depends on location of disease. May include abdominal pain, diarrhea, weight loss and fatigue.

Bloody stool: Variable

Malnutrition: Common



Ulcerative Colitis

Age of onset: 15–35 years and 55–70 years

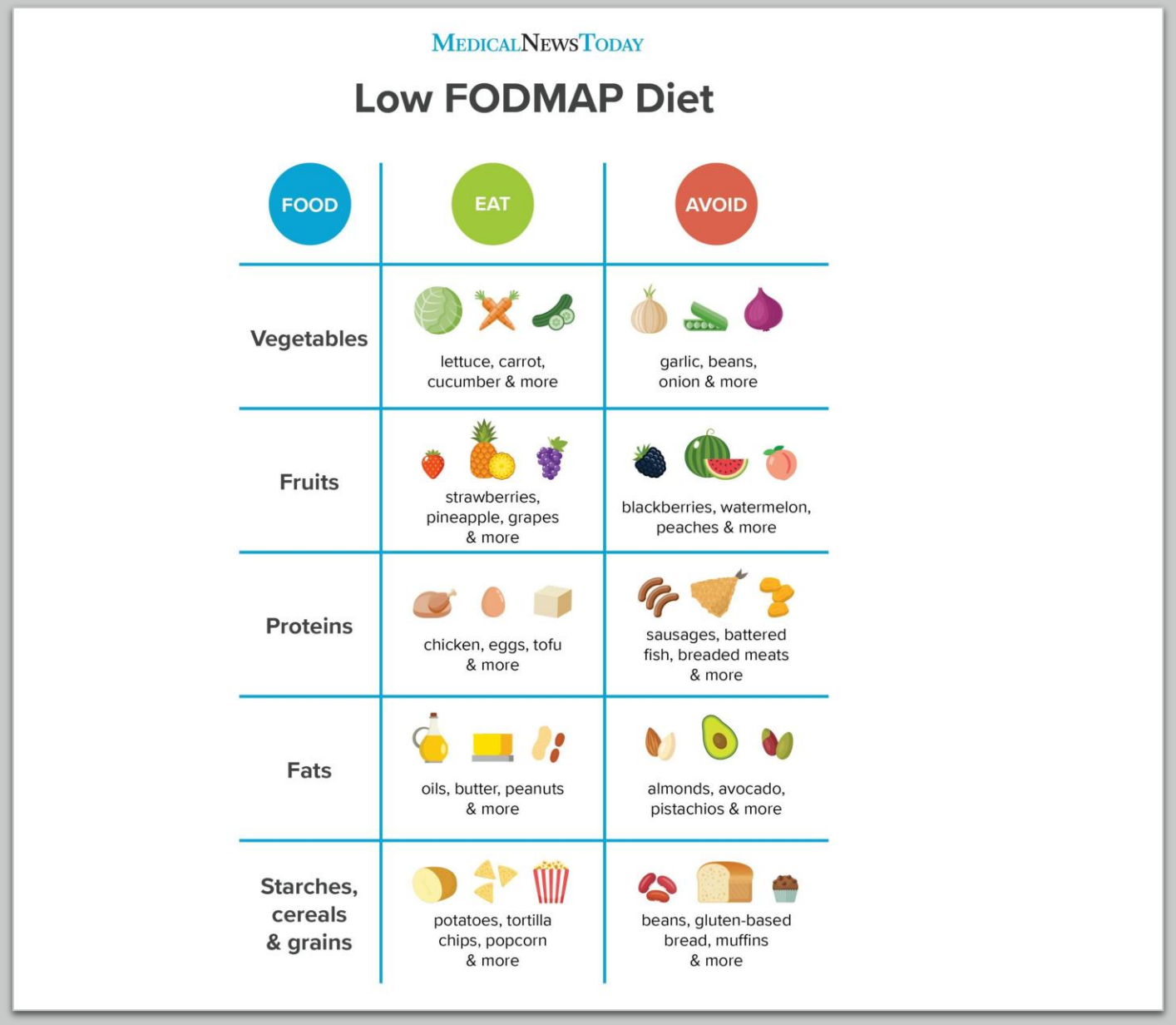
Symptoms: May include stool urgency, fatigue, increased bowel movements, mucous in stool, nocturnal bowel movements and abdominal pain.

Bloody stool: Common

Malnutrition: Less common

Dietary Considerations

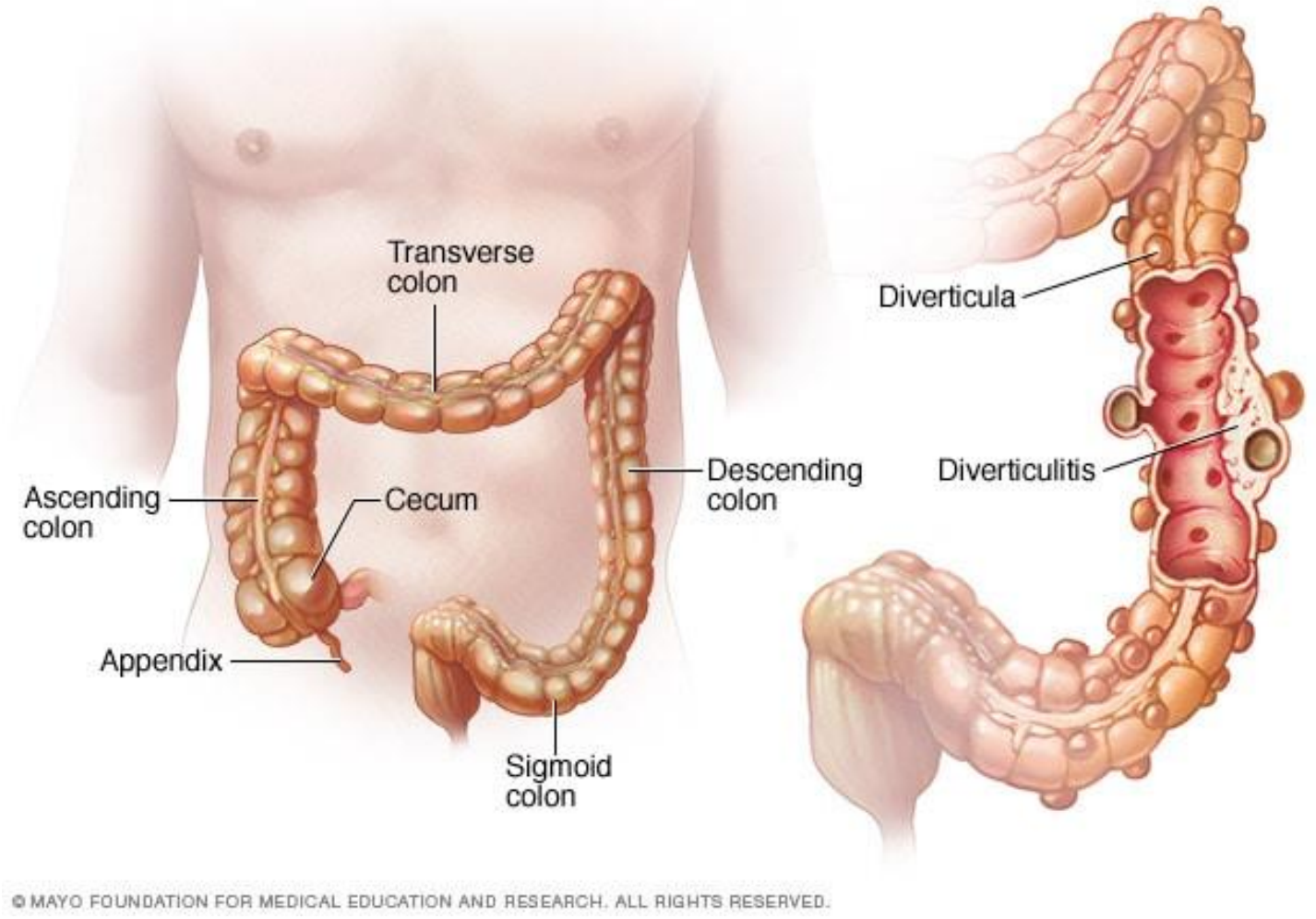
- Gluten free
- FODMAP



Diverticulitis

Definition

- Inflamed diverticula, which are abnormal but common outpouchings of the gastrointestinal lumen. The inflammation is usually uncomplicated, but it may become complicated by macroperforation, bleeding, obstruction, fistula, phlegmon, or abscess.



Presentation

- acute, constant abdominal pain
- tenderness, typically in the left-lower quadrant
- fever often present
- Confirmed with CT Scan
- Can become complicated.

Nursing management

Most managed outpatient.

Inpatient management includes

- NO PO INTAKE!
- IV fluid
- IV antibiotics

Dietary Fiber Teaching