

DIGESTIVE SYSTEM

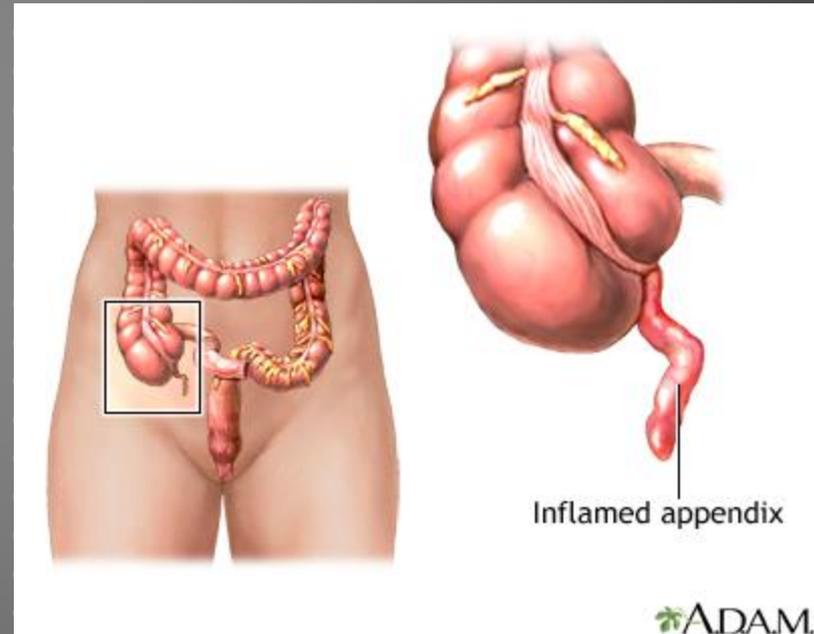
Diseases and Disorders

DHO 8

Created by Dana Cashion

APPENDICITIS

- ▶ An acute inflammation of the appendix
- ▶ Usually caused by an obstruction and infection
- ▶ Appendix can rupture possibly causing peritonitis
- ▶ Treated with an appendectomy



SIGNS AND SYMPTOMS

- ▶ Generalized abdominal pain, that later localizes at RLQ
- ▶ N/V
- ▶ Mild fever
- ▶ Elevated WBC count

APPENDICITIS



APPENDICITIS

- Peak incidence 10-12 years
- Begins as dull, steady pain in periumbilical area...
Progresses over 4-6 hours & localizes to right lower quadrant
- Low grade fever
- Nausea
- Anorexia
- Sudden pain relief may indicate rupture of appendix (Leads to peritonitis)

Diagnosis

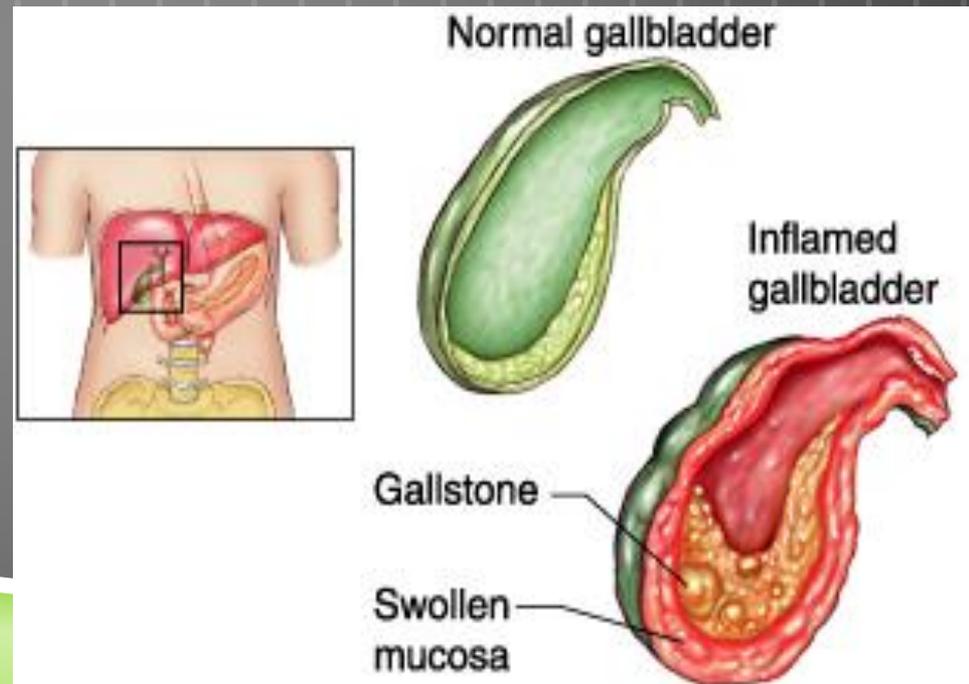
- Clinical signs and symptoms
- ↑WBC
- Abdominal Sonogram
- Exploratory Lap

- Rebound Pain or Tenderness (RLQ) at McBurney's Point

©2007 Nursing Education Consultants, Inc.

CHOLECYSTITIS

- ▶ Inflammation of the gallbladder
- ▶ But, if gallstones form, it is cholelithiasis
- ▶ Gallbladder can rupture, esp if gallstones block the bile ducts.
- ▶ Treatments can be low-fat diet, lithotripsy (shock waves to shatter stones), and/or cholecystectomy



SIGNS AND SYMPTOMS

- ▶ Symptoms occur after eating fatty foods
- ▶ Indigestion
- ▶ N/V
- ▶ Pain under rib cage, radiating to right shoulder



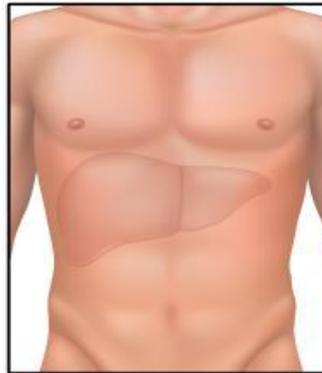
CIRROHSIS

- ▶ Chronic destruction of liver cells with formation of fibrous, connective and scar tissue
- ▶ Can be caused by hepatitis, bile duct disease, chemical toxins, and malnutrition/alcoholism
- ▶ Treatment is directed at preventing further damage
- ▶ Prevent further damage by avoiding alcohol; proper nutrition, vitamins, diuretics, rest, infection prevention, and exercise
- ▶ Can have liver transplant

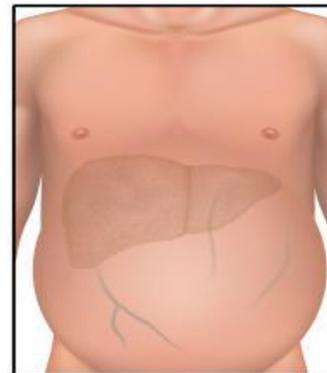
SIGNS AND SYMPTOMS

- ▶ Liver enlargement
- ▶ Anemia
- ▶ Indigestion
- ▶ Nausea
- ▶ Edema in legs and feet
- ▶ Hematemesis
- ▶ Nose bleeds
- ▶ Jaundice
- ▶ Ascites

Cirrhosis



healthy liver



hepatic cirrhosis

SIGNS AND SYMPTOMS WITH LIVER FAILURE

- ▶ Cirrhosis can lead to liver failure
- ▶ Disorientation
- ▶ Hallucinations
- ▶ Hepatic coma
- ▶ Death

Can have liver transplant



CONSTIPATION

- ▶ Fecal material stays in the colon too long and causes excessive absorption of water
- ▶ Feces becomes hard, dry, and difficult to eliminate
- ▶ Can be caused by poor bowel habits, chronic laxative use (causes lazy bowels), diet low in fiber, certain digestive diseases
- ▶ Treatment included high fiber diet, fluids, and exercise



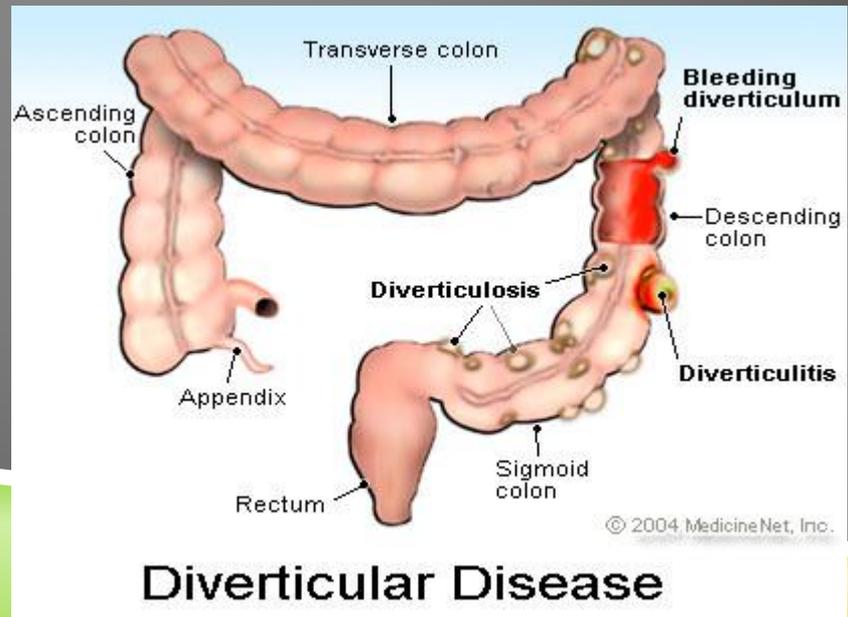
DIARRRHEA

- ▶ Frequent watery stools
- ▶ Caused by infection, stress, diet, irritated colon, toxic substances
- ▶ Can be very dangerous in children d/t excessive fluid loss
- ▶ Treatment is to eliminate the cause, adequate fluid intake, and modify your diet



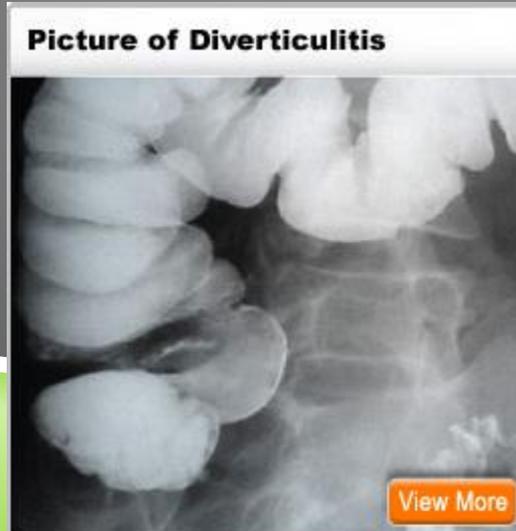
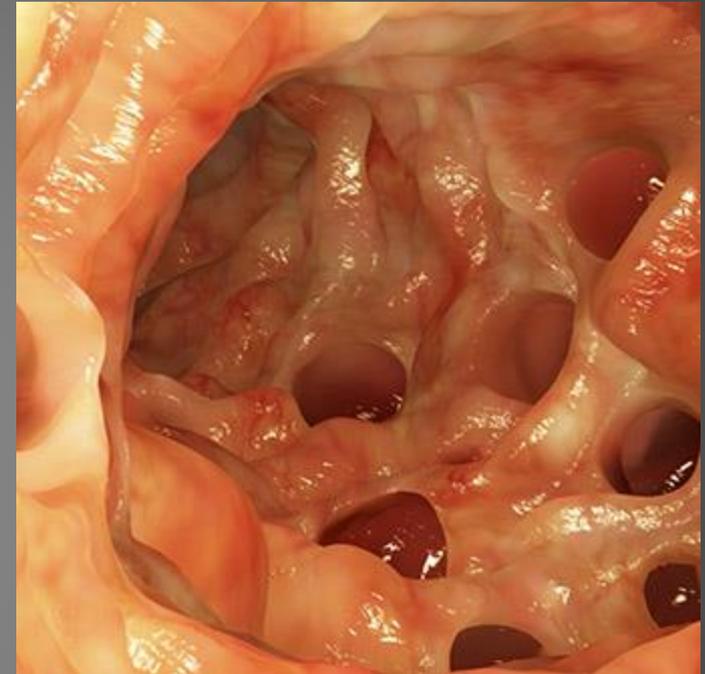
DIVERTICULITIS

- ▶ An inflammation of the diverticula (sacs that form in the intestine as mucosal lining pushes thru muscle)
- ▶ Can be caused by trapped fecal matter and bacteria
- ▶ Diverticula can abscess or rupture, causing peritonitis
- ▶ Treatment includes antibiotics, stool softeners, pain meds, high fiber diet, sx to remove affected part



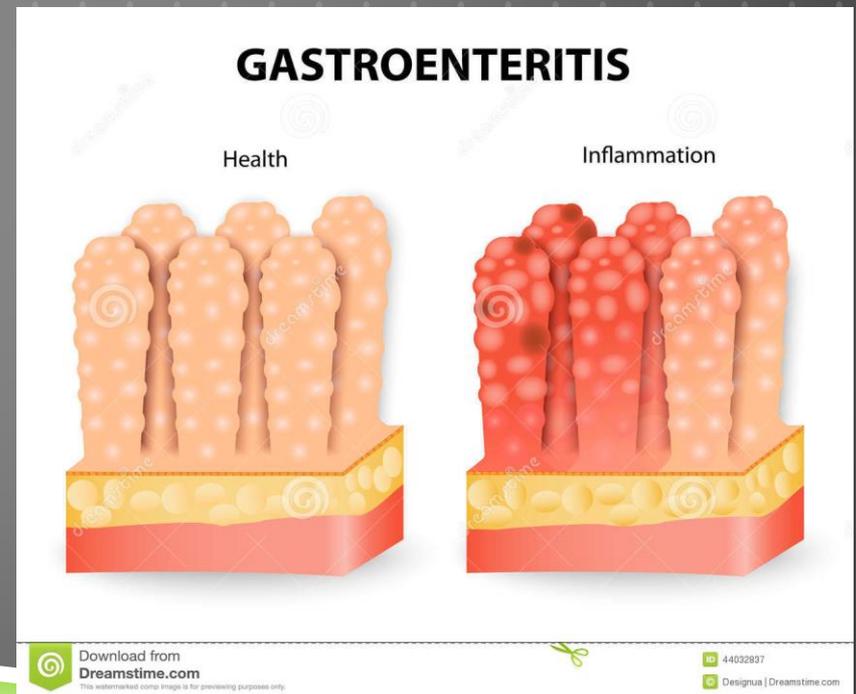
SIGNS AND SYMPTOMS

- ▶ Varies with the amount of inflammation
- ▶ Abdominal pain
- ▶ Irregular bowel movements
- ▶ Flatus
- ▶ Constipation or diarrhea
- ▶ Abdominal distention
- ▶ Low grade fever
- ▶ n/v



GASTROENTERITIS

- ▶ Inflammation of mucous membrane that lines the stomach and intestinal tract
- ▶ Can be caused by food poisoning, infection, toxins
- ▶ Treatment is rest and increased fluid intake
- ▶ If severe, abx, IVF, and medications to slow peristalsis



SIGNS AND SYMPTOMS

- ▶ Abdominal cramping
- ▶ n/v
- ▶ Fever
- ▶ Diarrhea



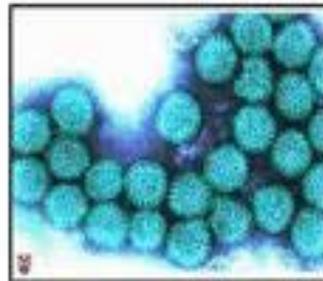
Causes of Gastroenteritis

▶ Viral: (60% of cases)

Rota virus, Norwalk virus
Adenovirus , Enteroviruses

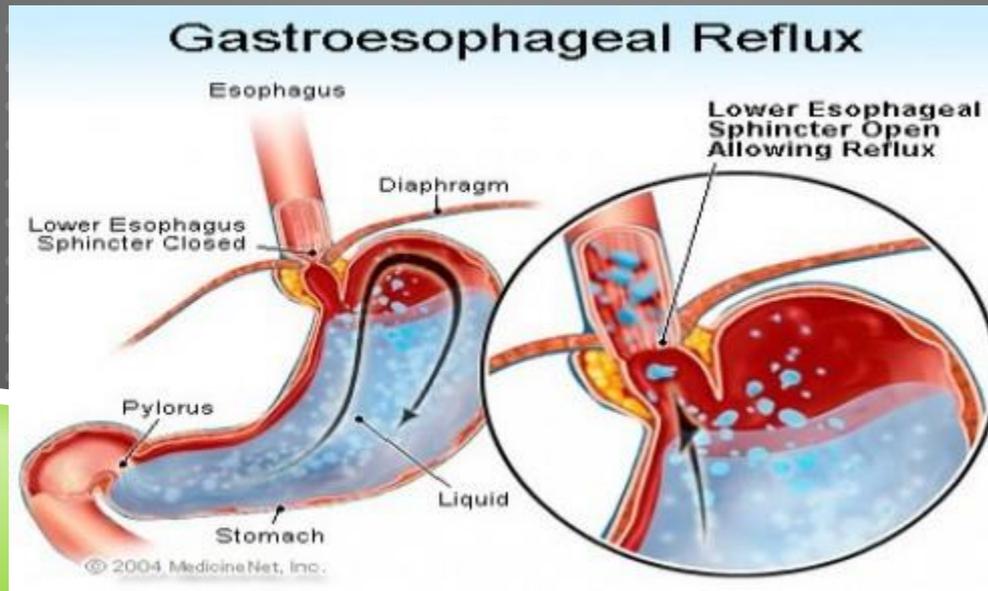
▶ Criteria:

- Age less than 2 years.
- common in winter.
- associated with URTI.
- pyrexia < 38.5C



GERD

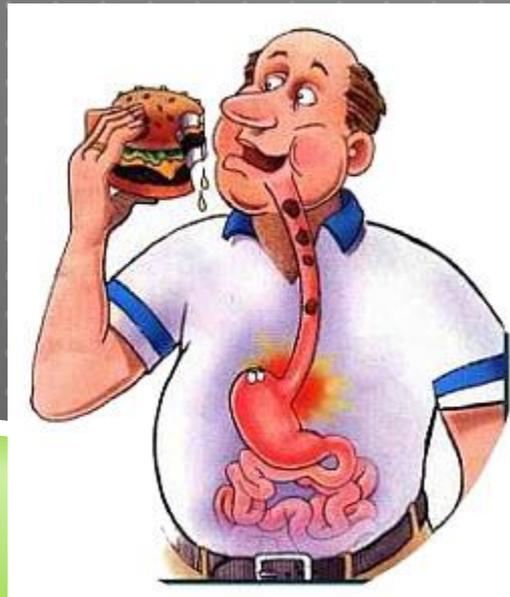
- ▶ Gastroesophageal reflux disease
- ▶ Chronic digestive disease
- ▶ Happens when stomach acid flows back (reflux) into your esophagus thru the lower esophageal sphincter (becomes weak and opens on its own or does not close)
- ▶ Reflux causes irritation, inflammation, and damage to the lining of esophagus
- ▶ Treatment is management and reduction of the symptoms



GERD

Risk Factors include:

- Obesity
- Pregnancy
- Hiatal hernia
- Smoking



SIGNS AND SYMPTOMS

- ▶ Chest burning or pain aka Heartburn
- ▶ Dysphagia
- ▶ Sour taste in mouth

- ▶ DX with GERD if signs and symptoms
 - ✓ occur at least twice each week



TREATMENT FOR GERD

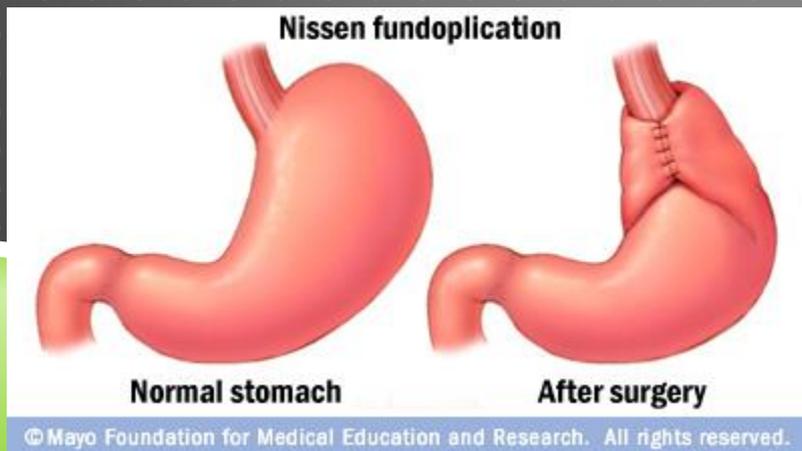
Lifestyle changes:

- ▶ **Losing weight;** excess weight puts pressure on your abdomen, pushing up your stomach and causing acid to back up into your esophogus
- ▶ **Loose-fitting clothes;** tight clothes around your waist put pressure on your abdomen and lower esophageal spincter (aka cardiac spincter)
- ▶ **Eat smaller meals**
- ▶ **Stay upright after eating;** wait at least 3 hours after eating to lie down or go to bed

TREATMENT FOR GERD

Medications:

- To neutralize stomach acid
- To reduce or block stomach acid production
- Prokinetics used to strengthen sphincter and speed gastric emptying
- If not successful, Nissen fundoplication surgery (laparoscopic procedure)- tightens the sphincter by wrapping the upper stomach around it



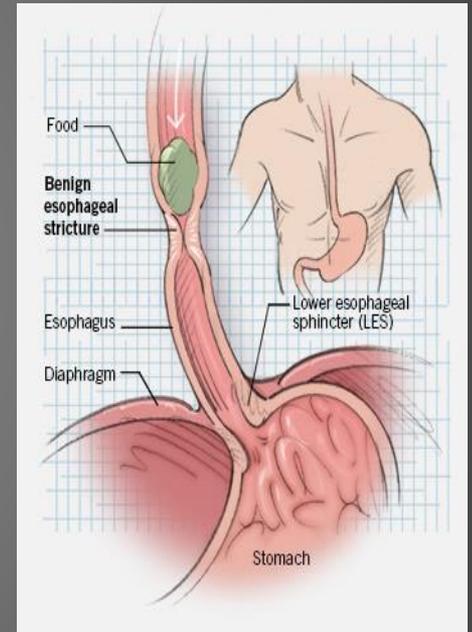
© Mayo Foundation for Medical Education and Research. All rights reserved.



SECONDARY ISSUES GERD

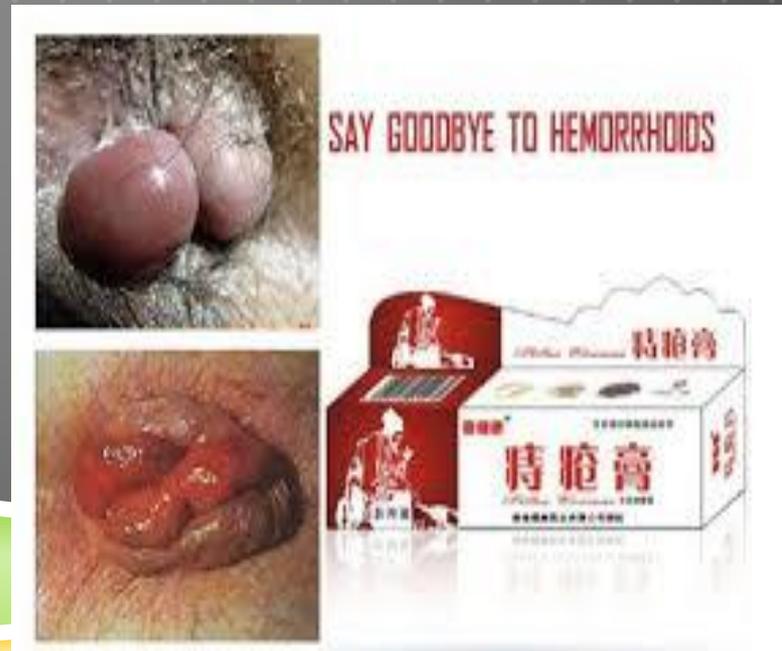
Chronic inflammation of the lining of the esophagus can cause:

- Scar tissue to form and create esophageal strictures (they narrow the esophagus and make it difficult for food to pass thru)
- Esophageal ulcers (open sores) that bleed
- Tissue changes can lead to Barrett's esophagus, a precancerous condition



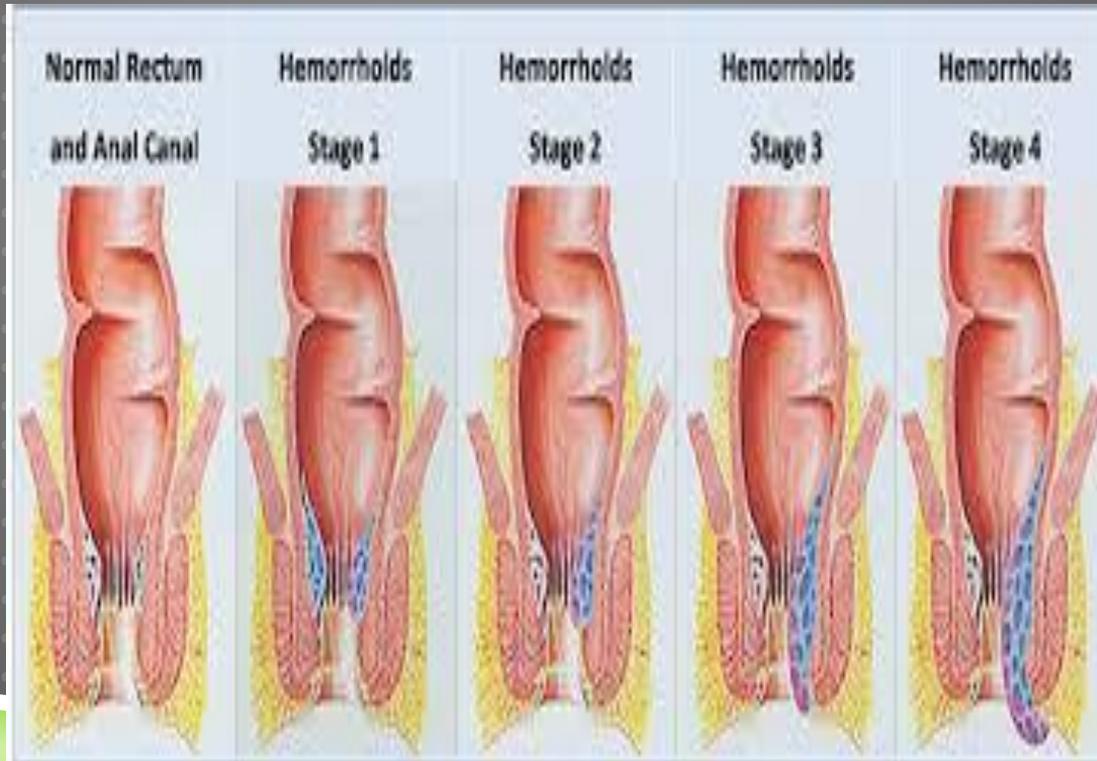
HEMORRHOIDS

- ▶ Painful dilated or varicose veins of rectum and/or anus
- ▶ Caused by straining to defecate, constipation, pressure during pregnancy, insufficient fluid intake, laxative abuse, prolonged sitting or standing
- ▶ Signs and symptoms may be pain, itching, and bleeding in rectal area
- ▶ Treatment includes high fiber diet, increased fluids, stool softener, sitz baths, warm moist compresses
- ▶ May need hemorrhoidectomy



SIGNS AND SYMPTOMS

- ▶ Pain
- ▶ Itching
- ▶ bleeding



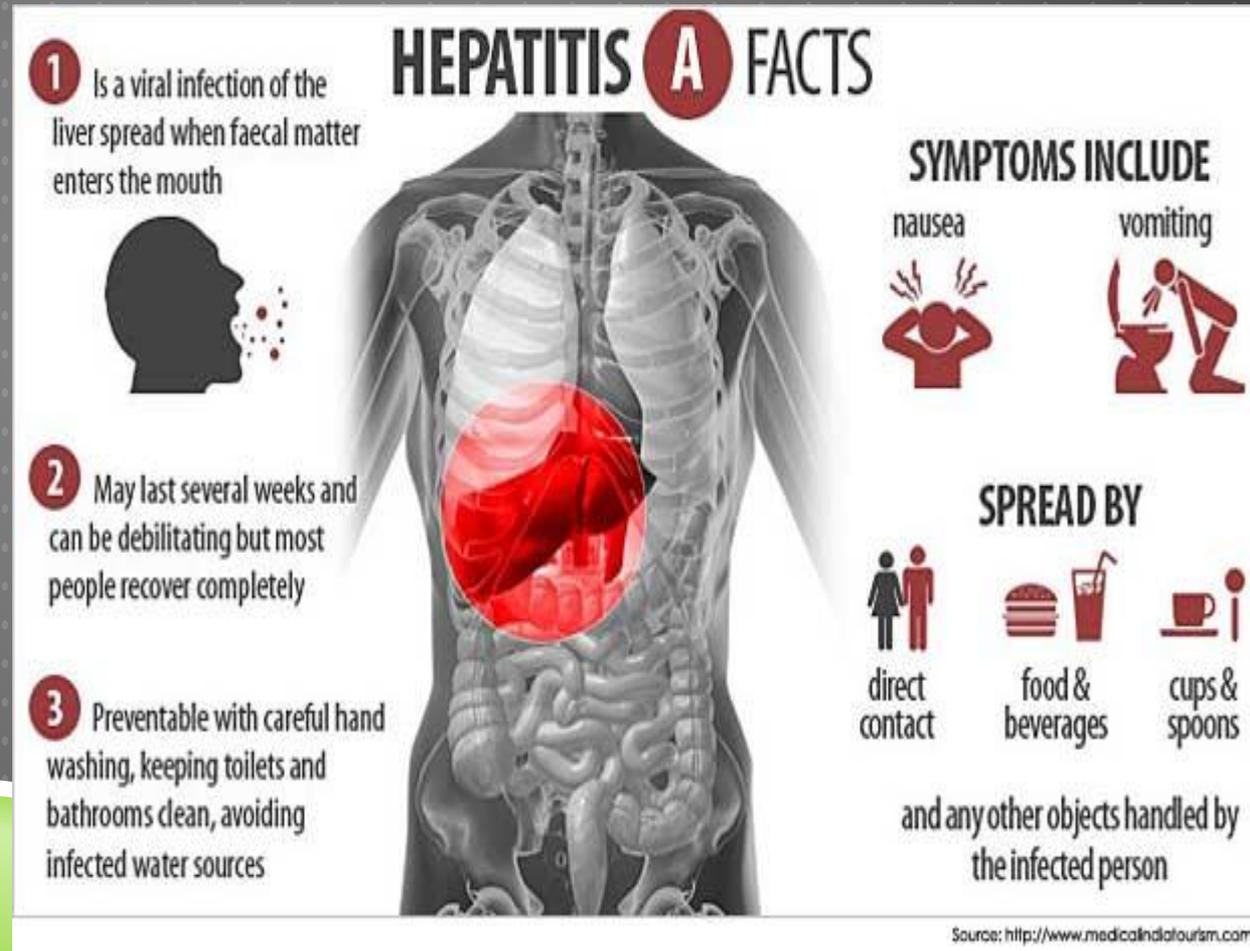
HEPATITIS

- ▶ Viral inflammation of the liver
- ▶ Several types but main are A, B, C
- ▶ Vaccines for A and B (HBV recommended for health care workers)
- ▶ Treatment methods included rest and diet high in protein and calories, and low in fat
- ▶ Liver transplant may be needed

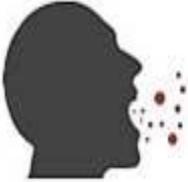
HEPATITIS A

- ▶ Aka infectious hepatitis
- ▶ Highly contagious
- ▶ Transmitted in food or water contaminated by the feces of an infected person
- ▶ Most benign and usually self-limiting
- ▶ Vaccine available

HEPATITIS A FACTS



1 Is a viral infection of the liver spread when faecal matter enters the mouth



2 May last several weeks and can be debilitating but most people recover completely

3 Preventable with careful hand washing, keeping toilets and bathrooms clean, avoiding infected water sources

SYMPTOMS INCLUDE

nausea 

vomiting 

SPREAD BY

direct contact 

food & beverages 

cups & spoons 

and any other objects handled by the infected person

Source: <http://www.medicalinfotourism.com>

HEPATITIS B

- ▶ Aka serum hepatitis
- ▶ Transmitted by body fluids
 - Blood and Serum
 - Saliva and breastmilk
 - Semen and Vaginal secretions
- ▶ More serious than type A
- ▶ Can lead to chronic hepatitis or cirrhosis

Jammi **Hepatitis B-Aware**

Spread through....

Hepatitis B
Don't
let it
defeat
you.

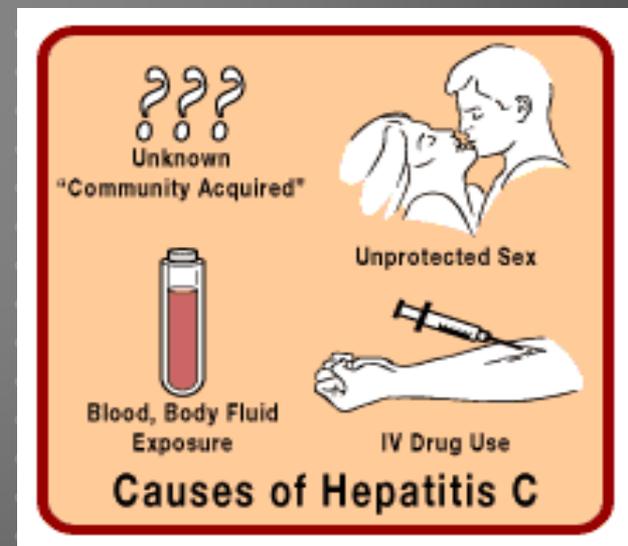
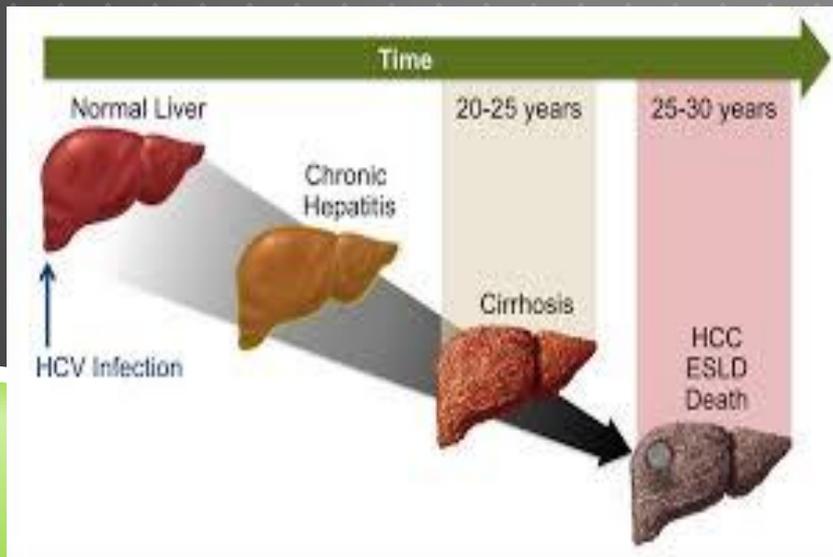
- 
Blood transfusions
- 
Sexual Contact with an infected person
- 
Tattoo or acupuncture with unclean needles or instruments
- 
Shared needles during drug use
- 
Shared razors, toothbrushes & nail clippers
- 
Direct contact with infected blood

28 JULY 2012
WORLD
Hepatitis
DAY

Jammi
Protecting Liver for more than 110 years

HEPATITIS C

- ▶ Also spread through contact with blood or body fluids
- ▶ Transmission includes sharing needles with drugs, getting stuck by sharp, or passing from mother to infant during birth
- ▶ More likely to progress to chronic hepatitis, cirrhosis, or both
- ▶ No vaccine



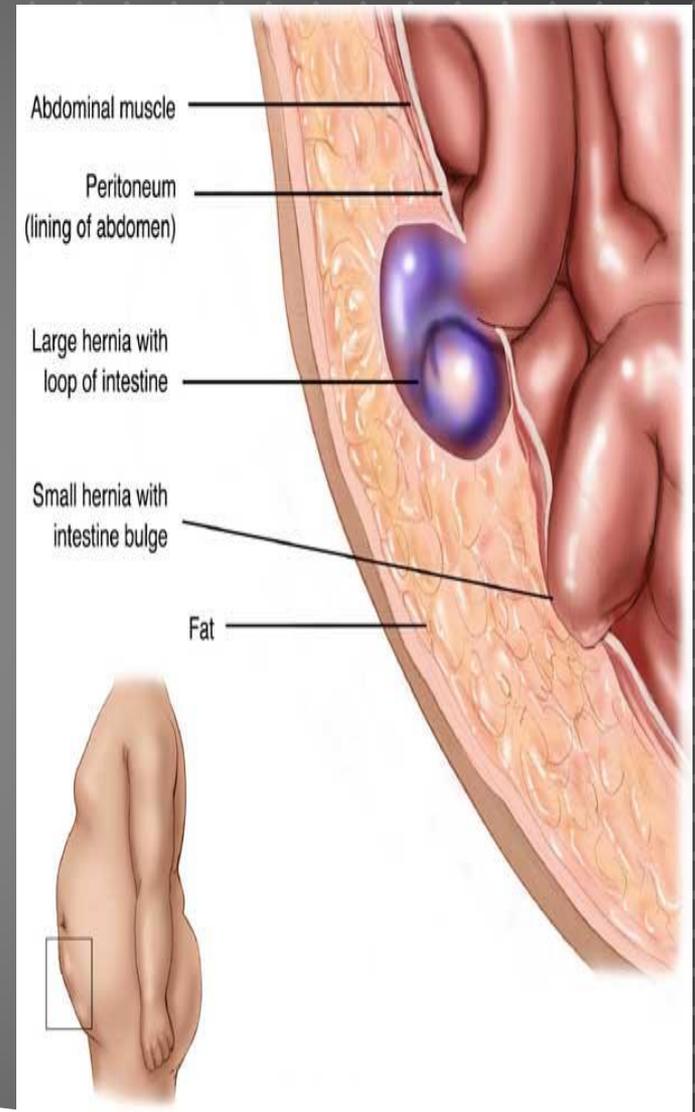
SIGNS AND SYMPTOMS OF HEPATITIS

- ▶ Fever
- ▶ Anorexia
- ▶ n/v
- ▶ Fatigue
- ▶ Dark-colored urine
- ▶ Clay-colored stool
- ▶ Myalgia
- ▶ Enlarged liver
- ▶ jaundice



HERNIA

- ▶ A rupture
- ▶ Occurs when an internal organ pushes through a weakened area or natural opening in a body wall
- ▶ Treatment may include a bland diet, small frequent meals, staying upright after eating, and surgical repair
- ▶ If the hernia cannot be pushed back into place (reduced), herniorrhaphy (sx repair) performed



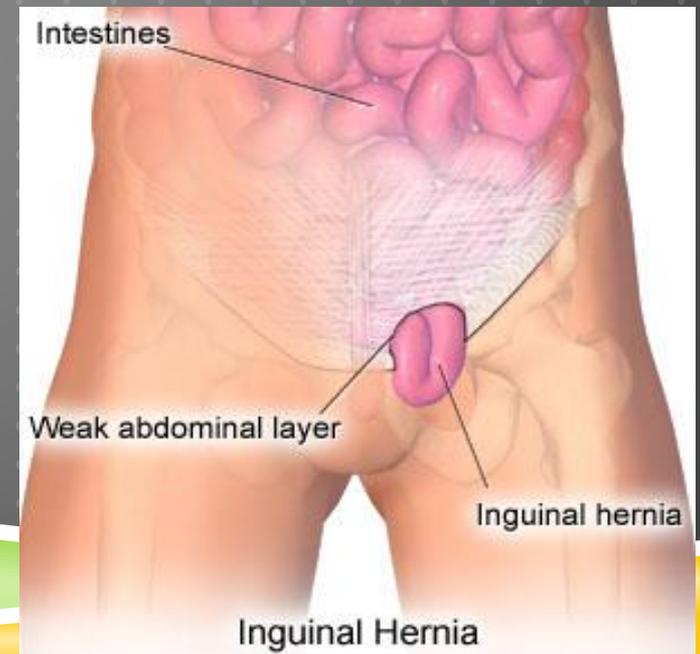
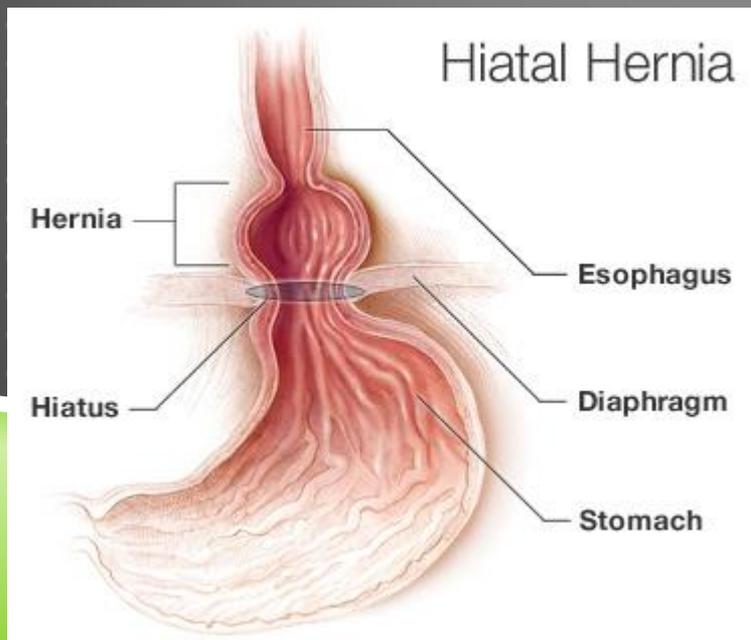
TYPES OF HERNIAS

- ▶ Hiatal hernia

- ▶ Stomach protrudes through the diaphragm and into the chest cavity through the opening for the esophagus (hiatus!)

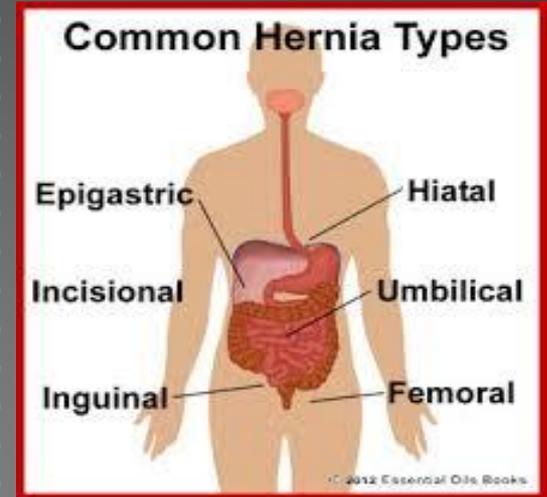
- ▶ Inguinal hernia

- ▶ Section of the small intestines protrudes through the inguinal rings of the lower abdominal wall



SIGNS AND SYMPTOMS

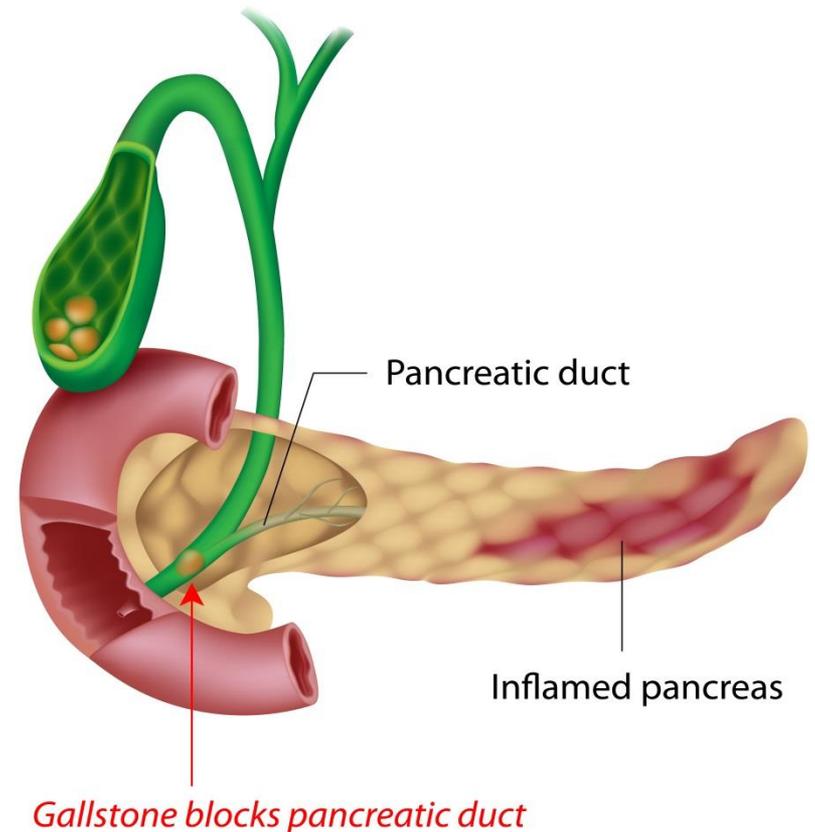
- ▶ Heartburn
- ▶ Stomach distention
- ▶ Chest pain
- ▶ Difficulty swallowing



PANCREATITIS

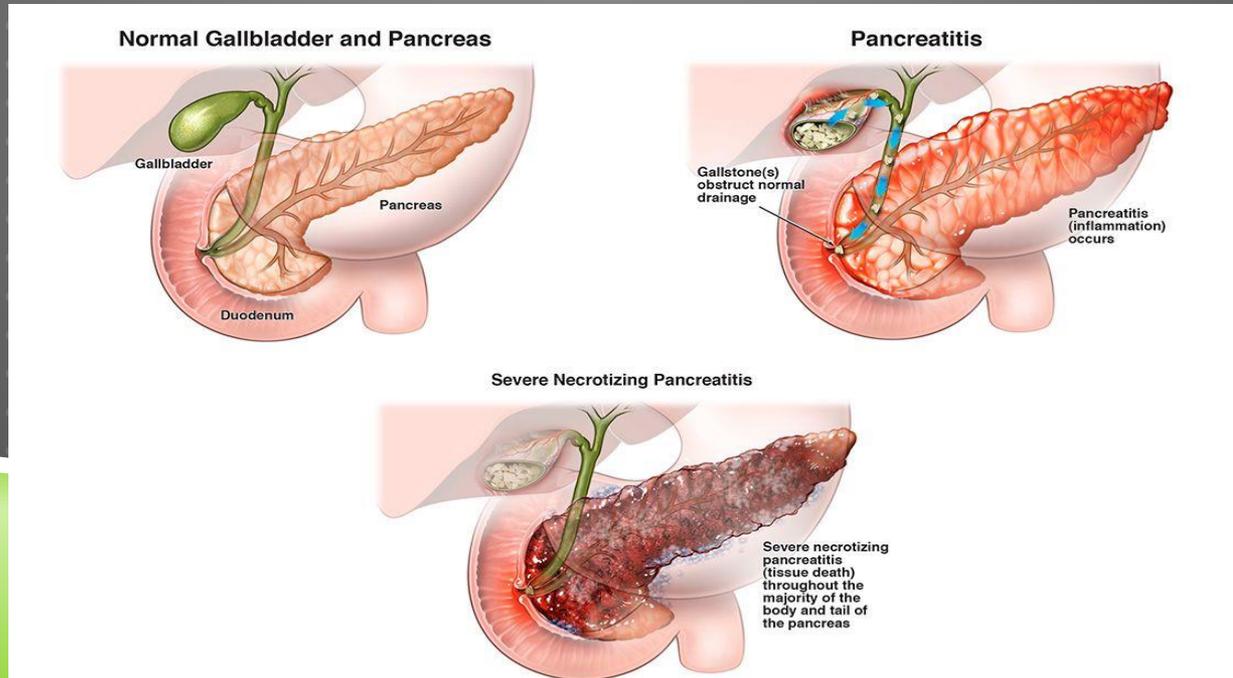
- ▶ Inflammation of the pancreas
- ▶ Pancreatic enzymes begin to digest the pancreas itself!!
- ▶ In turn, the pancreas becomes necrotic, inflamed, and edematous.
- ▶ If the damage includes the blood vessels in the pancreas, hemorrhage and shock can result.

Acute Pancreatitis



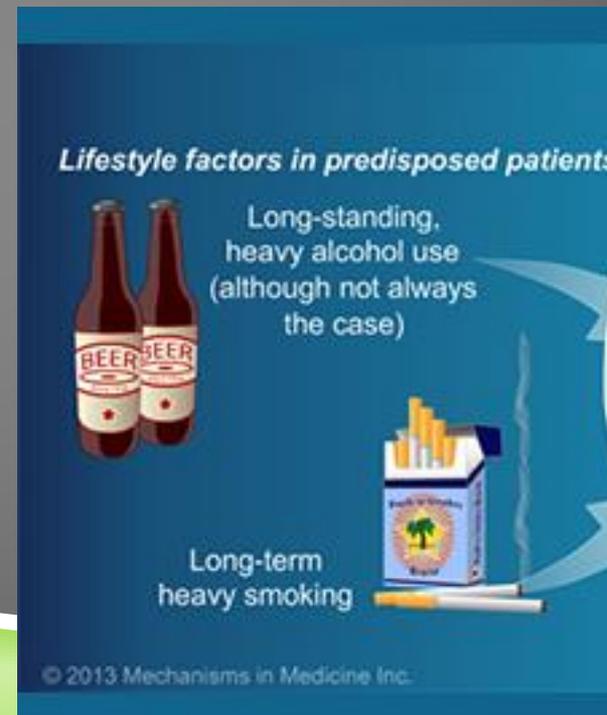
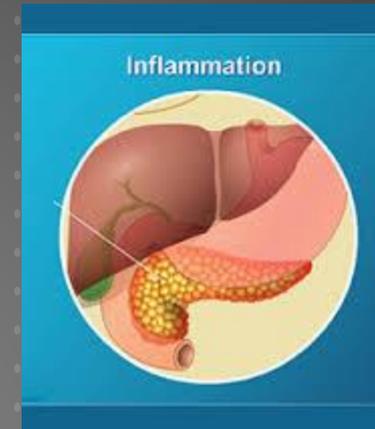
PANCREATITIS

- ▶ Can be caused by too much alcohol or blockage of pancreatic ducts by gallstones
- ▶ Also can have idiopathic, or unknown cause
- ▶ Treatment depends on the cause; cholecystectomy if gallstones. If cause is alcoholism or unknown, pain meds and nutritional support is needed.
- ▶ Idiopathic or alcoholic pancreatitis has poor prognosis and results usually in death.



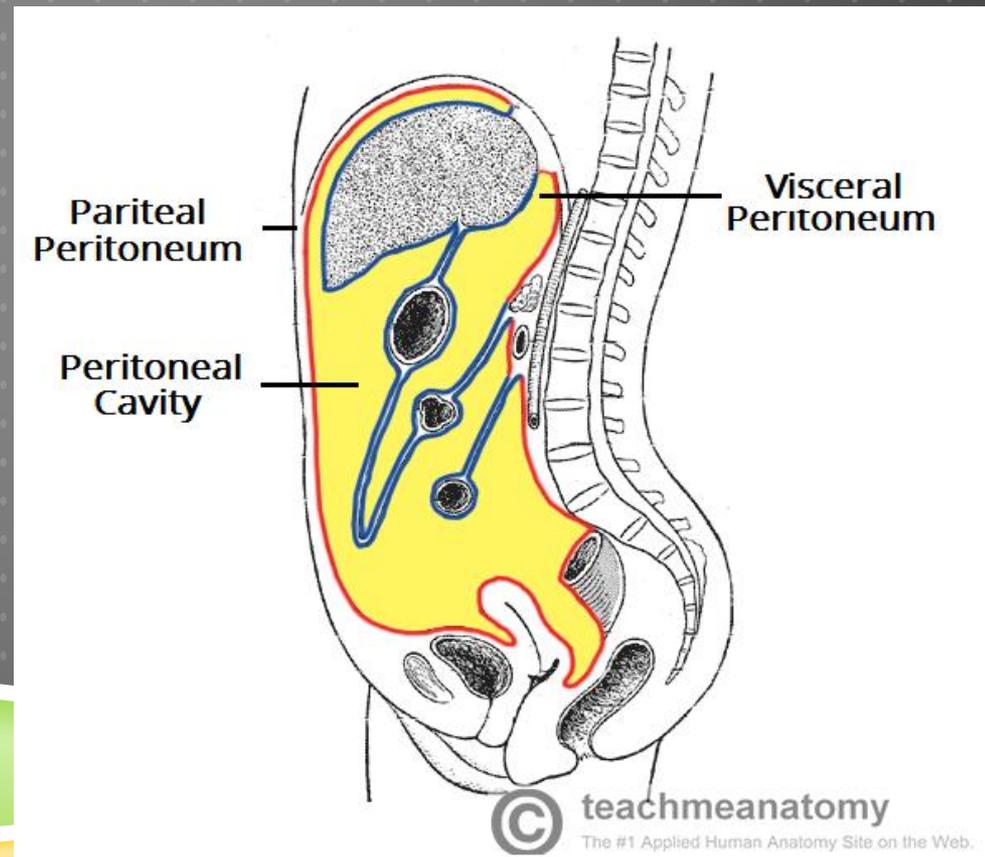
SIGNS AND SYMPTOMS

- ▶ Severe abdominal pain that radiates to the back
- ▶ n/v
- ▶ Diaphoresis
- ▶ Jaundice



PERITONITIS

- ▶ Inflammation of abdominal peritoneal cavity
- ▶ Usually caused by intestinal rupture and contents enter the peritoneal cavity
- ▶ Additional causes are ruptured appendix or gallbladder
- ▶ Treatment includes antibiotics and surgical repair of the damaged intestines



SIGNS AND SYMPTOMS

- ▶ Abdominal pain and distention
- ▶ Fever
- ▶ n/v

PERITONITIS "HOT BELLY"

Tx: I.D. Cause

- Antibiotics
- IV Fluids
- ↓ Abd Distention

100° F Plus

- Fever
- N & V
- Anorexia

Rebound Tenderness

"Board-Like" Abdomen

- Abd Distention & Rigidity

↑ WBC

X-Ray > DX

Risk Factors

- Abdominal Surgery
- Ectopic Pregnancy
- Perforation:
 - ★ Trauma
 - ★ Ulcer
 - ★ Appendix Rupture
 - ★ Diverticulum

Nursing Care

- IV's & Electrolyte Balance & GI Distention
- ↓ Infection Process
- Prevent Complications:
 - Immobility
 - Pulmonary
 - Fluid Balance

↑ Pulse

↑ BP

Dehydration

Pain

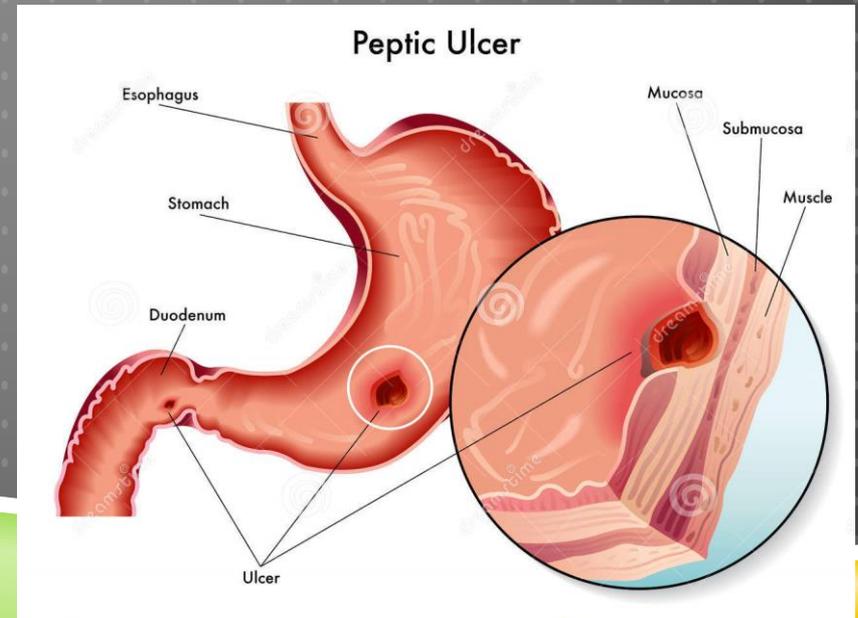
↓ Bowel Sounds

SHHH.... Bowels Sleeping

© 2007 Nursing Education Consultants, Inc.

ULCER

- ▶ An open sore on the lining of the digestive tract
- ▶ Several types of ulcers:
 - Peptic ulcers r/t pepsin (enzyme of protein digestion)
 - Gastric ulcers are located in the stomach
 - Duodenal ulcer are located in the duodenum
- ▶ Major cause can be *h. pylori*, bacteria that burrow into stomach membrane, allowing stomach acids and digestive juices to create an ulcer



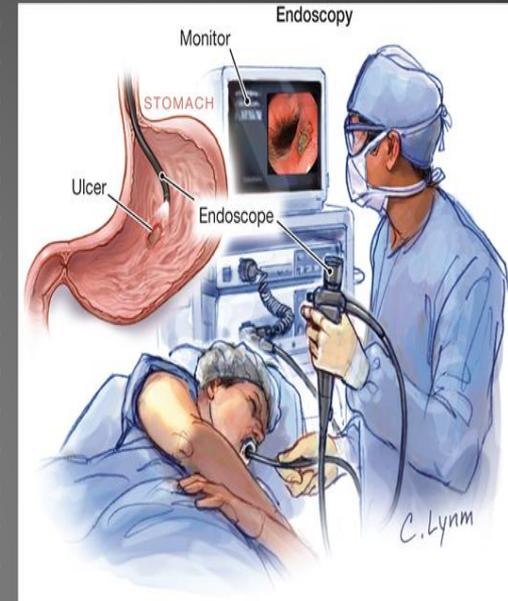
ULCER

- ▶ Treatment includes antacids, bland diet, decreased stress, and avoiding gastric irritants such as alcohol, fried food, tobacco, caffeine
- ▶ If confirmed *h. pylori*, treat with abx, pepto-bismol
- ▶ Can have surgery to remove affected area

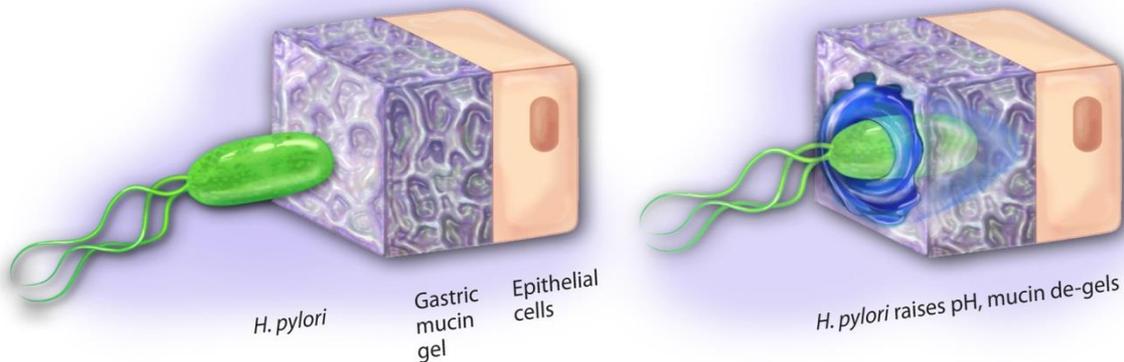


SIGNS AND SYMPTOMS

- ▶ Burning pain
- ▶ Indigestion
- ▶ Hematemesis (bloody vomit)
- ▶ Melena (dark, tarry stool)

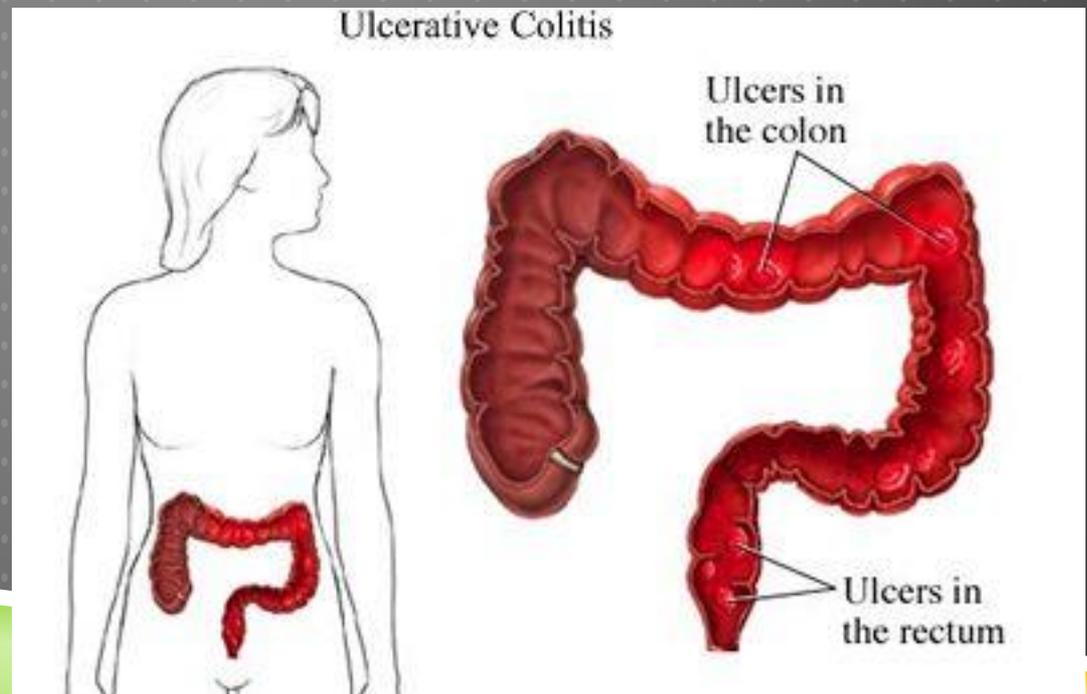
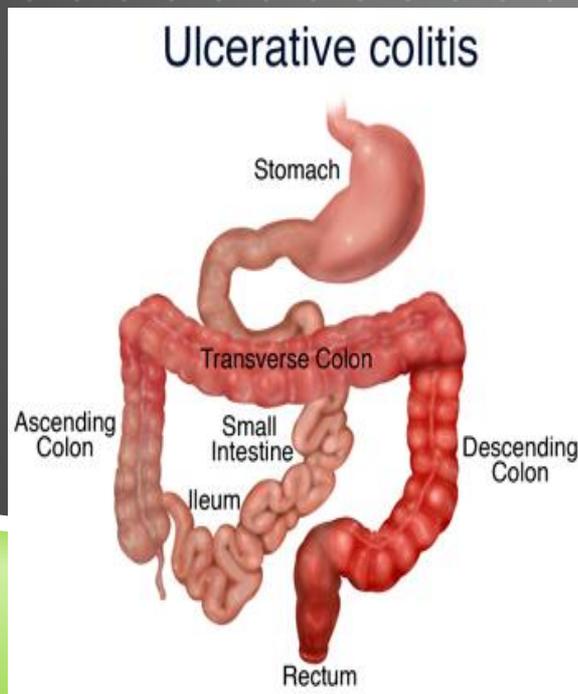


H. PYLORI CROSSING MUCUS LAYER OF STOMACH



ULCERATIVE COLITIS

- ▶ Severe inflammation of the colon with formation of ulcers and abscesses
- ▶ Thought to be caused by stress, food allergy, or autoimmune reaction
- ▶ Can have periods of remission and exacerbation



ULCERATIVE COLITIS

- ▶ Treatment is directed at controlling inflammation, reducing stress, proper nutrition, and avoiding substances that aggravates the condition
- ▶ Treatment can also included surgical removal of the affected colon and creation of colostomy



SIGNS AND SYMPTOMS

- ▶ Main symptom is diarrhea containing blood, pus, and mucous
- ▶ Weight loss
- ▶ weakness
- ▶ abdominal pain
- ▶ anemia
- ▶ anorexia

