Know
Assess
Intervene
Make a Difference. ♡

GASTROINTESTINAL SYSTEM

Anatomy and Physiology

Compassionate Nurses. Healthier Communities Tomorrow.

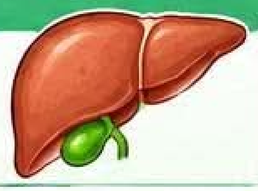


1 ORAL CAVITY



- Chewing + saliva starts carbohydrate digestion.
- Assess swallowing before PO medications/food (aspiration risk).

8 LIVER



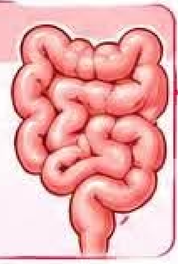
- Bile production, drug metabolism, clotting (protein synthesis).
- Liver disease → jaundice, bleeding, ascites, medication toxicity.

9 GALLBLADDER



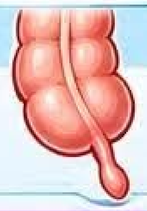
- Stores/releases bile for fat digestion.
- Gallstones → RUQ pain (especially after fatty meals).

10 SMALL INTESTINE

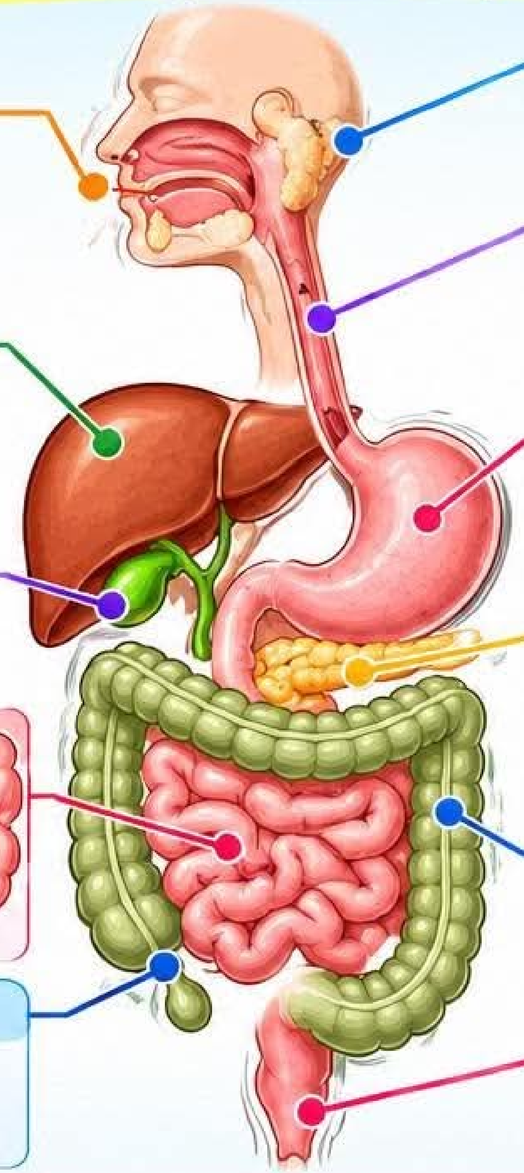


- Duodenum: receives bile & pancreatic enzymes.
- Jejunum/Ileum: absorbs vitamin B12 + bile salts + water.
- Ileal disease may cause B12 deficiency.
- Common site for ulcers; pancreatic/biliary problems affect digestion.

11 APPENDIX



- Lymphoid tissue; no major digestive role.
- Appendicitis → RLQ pain, rebound tenderness; avoid heat, enemas, laxatives.



2 PAROTID GLAND

- Major salivary gland produces saliva + amylase.
- Swelling/pain near jaw or ear → mumps/ parotitis; assess hydration, oral hygiene, and infection signs.

3 ESOPHAGUS



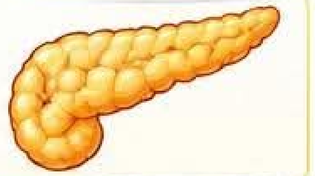
- Peristalsis moves food to stomach.
- GERD, dysphagia (aspiration risk); keep upright after meals; medication-induced esophagitis (e.g., alendronate).

4 STOMACH



- Stores + mixes food; acid starts protein digestion.
- Ulcers/upper GI bleeding → watch coffee-ground emesis, hematemesis.

5 PANCREAS



- Produces enzymes + insulin/glucagon (exocrine & endocrine).
- Pancreatitis → epigastric pain radiates to back.
- Diabetes (endocrine function).

6 LARGE INTESTINE (COLON)



- Absorbs water, Na+, electrolytes; forms stool.
- Diarrhea → dehydration/electrolyte loss.
- Inflammatory bowel disease (Crohn's & Ulcerative colitis).

7 RECTUM / ANUS



- Stores and eliminates stool.
- Assess bowel pattern, hemorrhoids, bleeding, continence.

KEY NURSING CONSIDERATIONS



BEFORE GIVING ORAL MEDICATIONS/FOOD

- Assess swallowing ability.
- Upright position after meals.
- Aspiration risk.



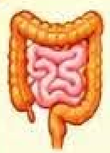
PROMOTE GOOD NUTRITION

- Adequate hydration.
- Monitor for malabsorption (e.g., B12, fat-soluble vitamins).



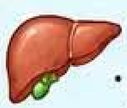
MONITOR FOR COMPLICATIONS

- GI bleeding (hematemesis, melena).
- Infection (e.g., C. diff).
- Electrolyte imbalances.



ASSESS BOWEL FUNCTION

- Frequency, consistency, and appearance.
- Report changes (diarrhea, constipation, bleeding).



MONITOR LIVER FUNCTION

- Jaundice, ascites, bleeding tendencies.
- Watch for medication toxicity.
- Assess nutrition and coagulation labs.



PAIN & SYMPTOM MANAGEMENT

- Assess location and character of GI pain (e.g., epigastric vs. RUQ vs. RLQ).
- Monitor for nausea, vomiting, and signs of obstruction.

NURSING SCHOOL
LEARN • CARE • LEAD

GASTROINTESTINAL
ANATOMY AND PHYSIOLOGY

Structure • Function • Coordination • Healthier Lives

Understanding Today. Better Care Tomorrow.

OVERVIEW
- The gastrointestinal (GI) system digests food, absorbs nutrients and water, eliminates waste, and maintains fluid, electrolyte, and acid–base balance.
- It works through coordinated structures, secretions, and hormones.

MAIN FUNCTIONS
- Ingestion
- Digestion
- Absorption
- Fluid & Electrolyte Balance
- Elimination

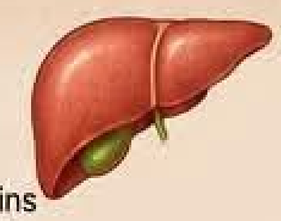
REGULATION
- **Nervous control:** Enteric nervous system (ENS) & autonomic nervous system
- **Hormonal control:** e.g., gastrin, secretin, cholecystokinin (CCK), GIP, motilin
- **Local factors:** pH, distension, chemical stimuli

ORAL CAVITY

- Mechanical digestion (chewing)
- Saliva (amylase) starts carbohydrate digestion
- Assess swallowing before PO intake; aspiration risk

ESOPHAGUS

- Peristalsis moves food to the stomach
- Lower esophageal sphincter (LES) prevents reflux
- GERD, dysphagia, aspiration risk

LIVER

- Produces bile
- Metabolizes nutrients, drugs, and toxins
- Stores glycogen, vitamins (A, D, E, K, B12) and iron
- Liver disease – jaundice, bleeding, ascites, medication toxicity

GALLBLADDER

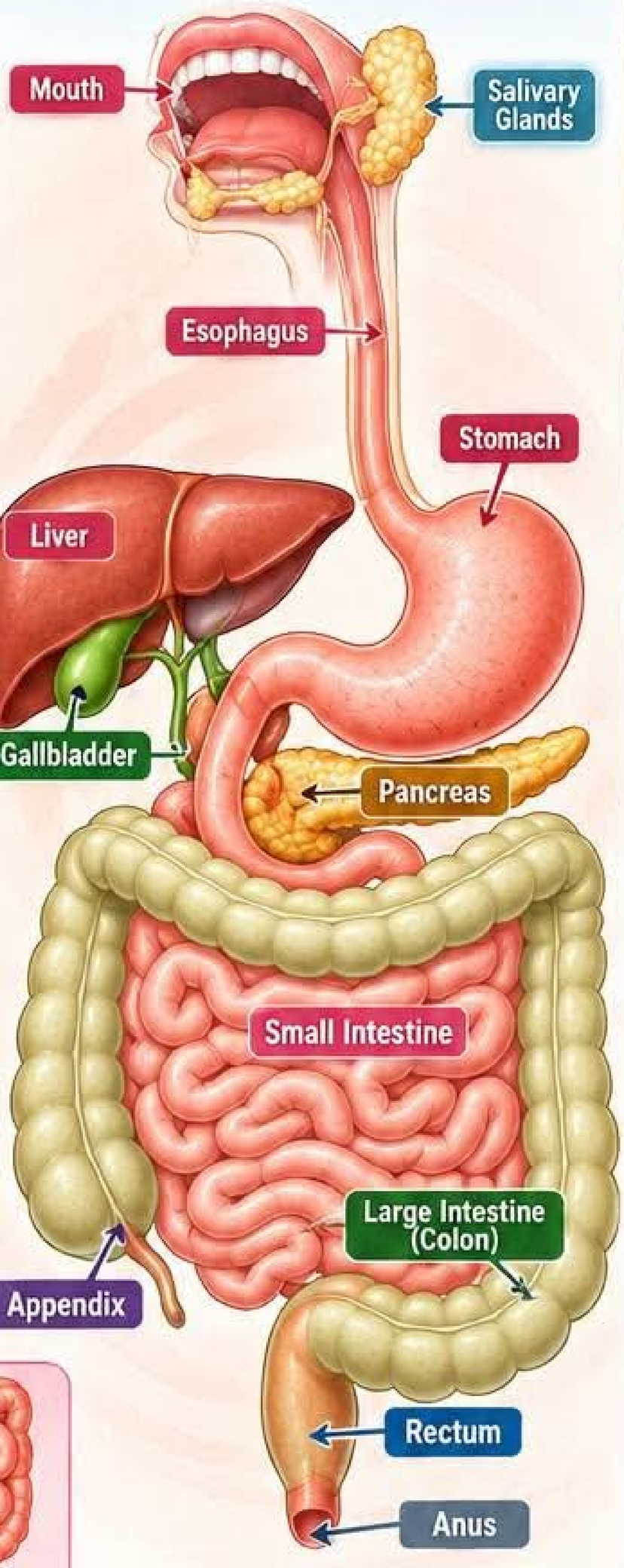
- Stores and concentrates bile for fat digestion
- Gallstones – RUQ pain, especially after fatty meals

DUODENUM
(SMALL INTESTINE – 1st PART)

- Receives bile and pancreatic enzymes
- Major site of chemical digestion

SMALL INTESTINE
(JEJUNUM & ILEUM)

- Completes digestion
- Absorbs nutrients, vitamins (B12 in ileum), bile salts, and water
- Common problems: malabsorption, diarrhea, vitamin deficiencies

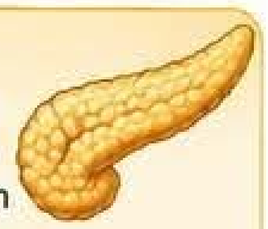


SALIVARY GLANDS
(PAROTID, SUBMANDIBULAR, SUBLINGUAL)

- Produce saliva (amylase, mucus)
- Moistens food, aids swallowing
- Swelling/pain – mumps, parotitis; assess hydration, oral hygiene, and infection signs

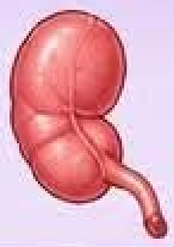
STOMACH

- Stores and mixes food with gastric acid and pepsin
- Begins protein digestion
- Intrinsic factor for vitamin B12
- Ulcers/upper GI bleeding – watch for coffee-ground emesis and hematemesis

PANCREAS

- Produces digestive enzymes (amylase, lipase, proteases)
- Secretes insulin and glucagon (endocrine function)
- Pancreatitis – epigastric pain radiating to back; diabetes mellitus

LARGE INTESTINE (COLON)

- Absorbs water, electrolytes, and forms stool
- Normal flora synthesize vitamin K and some B vitamins
- Diarrhea → dehydration, electrolyte loss; Inflammatory bowel disease (Crohn's & ulcerative colitis)

APPENDIX

- Lymphoid tissue (no major digestive role)
- Appendicitis – RLQ pain, rebound tenderness

RECTUM AND ANUS

- Stores and eliminates stool
- Assess bowel pattern, hemorrhoids, bleeding, continence

NURSING IMPLICATIONS
- ☑ Perform focused GI assessment (history, diet, bowel pattern, abdominal exam)
- ☑ Monitor I&O, electrolytes, and nutritional status
- ☑ Prevent aspiration and promote safe swallowing
- ☑ Provide patient education (diet, medications, lifestyle)
- ☑ Recognize early signs of GI complications

REMEMBER!
- ✓ Structure explains function
- ✓ Function guides assessment
- ✓ Assessment leads to early detection
- ✓ Early detection improves outcomes

"Good assessment leads to better care."

A HEALTHY GI SYSTEM SUPPORTS A HEALTHY YOU!


Small Choices. Big Impact.



NURSING: MORE THAN A PROFESSION, A GREATER PURPOSE.

Sir Pol

NURSING SCHOOL
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"Small Concepts. Big Impact."

GASTROINTESTINAL

ANATOMY AND PHYSIOLOGY KEY CONCEPTS I

STRUCTURE • FUNCTION • CLINICAL SIGNIFICANCE

"Understanding today. Better care tomorrow."

CONCEPT	KEY POINT	KEY POINTS / CLINICAL NOTES
Digestion	Breaks food into nutrients	Needs acid, bile, enzymes
Absorption	Nutrients move into blood	Mostly occurs in small intestine
Peristalsis	Wave-like movement of food	↓ motility → constipation/ileus
Bile	Breaks down fats	Liver production, Gallbladder releases bile
Enzymes	Digest carbohydrates, fats, proteins	Pancreas releases major enzymes
Liver metabolism	Processes drugs/toxins	Liver disease → medication toxicity risk
Clotting factors	Made by liver	Liver disease → bleeding risk
Fluid balance	Colon absorbs water	Diarrhea → DHN/electrolyte loss
GI bleeding	Blood loss from GI tract	Coffee-ground emesis, hematemesis = UGIB; Hematochezia, melena = LGIB
Obstruction	Blockage of GI flow	Distention, vomiting, absent/ high-pitched bowel sounds
Perforation	Hole in GI tract	Rigid abdomen → peritonitis = emergency
Peritonitis	Infection/inflammation of peritoneum	Rigid board-like abdomen = emergency

PERITONITIS: PATHOPHYSIOLOGY AND CLINICAL COURSE



Peritonitis

Risk factors:
- Ulcer / appendicitis / diverticulitis
- Trauma / obstruction

GI wall becomes weakened or damaged

Perforation occurs

GI contents leak into abdominal cavity



Chemical irritation + bacterial contamination



Peritonitis develops

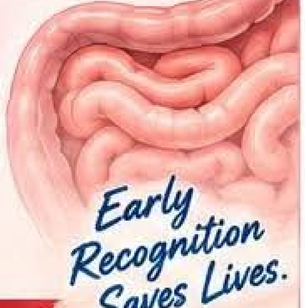
Severe abdominal pain + rigid/board-like abdomen

Systemic infection response

Fever, ↑ HR, ↓ BP, ↑ WBC

Complications:
- Sepsis
- Shock
- Organ failure





Early Recognition Saves Lives.



Immediate priority: NPO + assess VS/abdomen + start IV access/fluids + notify provider/surgeon immediately



♡ Sir Pol

KEY TAKEAWAY:

- Understand the basics
- Recognize early warning signs
- Apply in clinical practice
- Better assessment, better outcomes!

Knowledge Translates to Better Lives.

NURSING: MORE THAN A PROFESSION, A GREATER PURPOSE.

COMPETENT NURSES | SAFER PATIENTS | HEALTHIER COMMUNITIES

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GASTROINTESTINAL
ANATOMY AND PHYSIOLOGY KEY CONCEPTS II

UNDERSTAND • CONNECT • APPLY • PROVIDE BETTER CARE

Today's Knowledge Tomorrow's Better Care.

GI CONCEPT	KEY POINT	KEY POINTS / CLINICAL NOTES
Bowel sounds	Reflect intestinal movement	Absent = possible ileus; high-pitched = possible obstruction
Electrolyte loss	Vomiting/diarrhea cause fluid + electrolyte imbalance	Watch K^+, dehydration, weakness, dysrhythmias
Acid-base imbalance	Vomiting loses acid; diarrhea loses bicarbonate	Vomiting → metabolic alkalosis; diarrhea → metabolic acidosis
Nutrient absorption	Small intestine absorbs most nutrients	Malabsorption → weight loss, anemia, vitamin deficiencies
Vitamin B12 absorption	Absorbed in ileum with intrinsic factor	Low B12 → pernicious anemia/ neurologic symptoms
Fat digestion	Needs bile + pancreatic enzymes	Gallbladder/pancreas disease → fatty stools (steatorrhea)
Portal circulation	Blood from GI organs goes to liver	Liver disease → portal HTN, varices, ascites
Ammonia detoxification	Liver converts ammonia to urea	Liver failure → ↑ ammonia → confusion/encephalopathy
GI protection	Mucus protects stomach lining	NSAIDs/stress → ↑ ulcer and bleeding risk
Post-op bowel function	Anesthesia/opioids slow peristalsis	Monitor flatus, bowel sounds, distention
Stool characteristics	Color/consistency reflect GI issues	Black tarry → upper GI bleed; clay-colored = bile obstruction

LIVER FAILURE / CIRRHOSIS AND AMMONIA BUILD-UP

Liver cannot detoxify ammonia effectively
↓
Ammonia builds up in the blood
↓
Ammonia crosses blood-brain barrier
↓
Impaired brain function
↓
Coma



Early signs:
- Confusion
- Sleep changes
- Irritability
- Poor concentration

Immediate priority:
- Assess LOC, airway safety, fall risk
- Check ammonia level
- Give lactulose or rifaximin as ordered

Worsening signs:
- Asterixis
- Slurred speech
- Lethargy
- Disorientation

STOOL COLOR GUIDE

Black tarry	Clay-colored	Normal brown
= Upper GI bleed (melena)	= Bile obstruction	= Normal

RN FLASH TIP:

GI priorities:
- ☑ Airway/aspiration
- ☑ Bleeding
- ☑ Dehydration
- ☑ Electrolyte imbalance
- ☑ Obstruction
- ☑ Perforation
- ☑ Mental status changes (from liver disease)



♡ Sir Pol

"Knowledge in nursing turns small details into big differences."

KEY TAKEAWAYS

- ☑ Recognize important GI concepts and their clinical significance.
- ☑ Identify early signs of complications.
- ☑ Monitor and assess appropriately.
- ☑ Apply knowledge to provide safe and effective patient care.

Same Passion. Greater Impact.

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Assessment Drives Better Care.

GASTROINTESTINAL
COMMON TESTS / PROCEDURES

Knowledge Today. Competent Nurses Tomorrow.

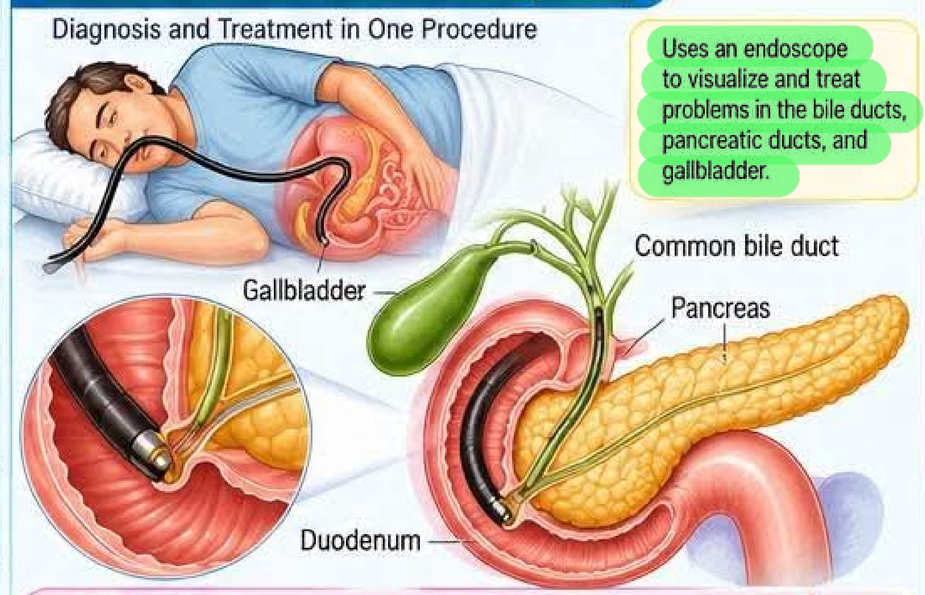
SAME TESTS. BRIGHTER NURSES. HEALTHIER TOMORROWS.

TEST / PROCEDURE	PURPOSE	SAFETY / NURSING CONSIDERATIONS
Stool occult blood test (FOBT) (bleeding)	Detects hidden (occult) GI bleeding.	Avoid urine/water contamination; report positive result (bleeding).
C. difficile stool test (infection)	Detects *C. difficile* toxin/ infection.	Use contact precautions; hand hygiene with soap and water.
Ova & parasite stool test (Infection)	Detects parasitic infection (e.g., Giardiasis).	Collect fresh specimen as ordered.
Upper GI series / Barium swallow → visual test	Views esophagus, stomach, duodenum.	Post-procedure: ↑ fluids; stool may be white/chalky.
Barium enema → Rectum	Views colon/rectum.	Post-procedure: ↑ fluids; monitor for constipation/impaction.
Abdominal ultrasound	Checks liver, gallbladder, pancreas, ascites. → Excess fluid buildup	Often NPO before test.
HIDA scan (Hepatobiliary Iminodiacetic acid scan)	Assesses gallbladder function/bile flow.	NPO as ordered; report increased pain.
CT abdomen with contrast	Detects obstruction, tumors, bleeding, inflammation.	Check allergy, creatinine/GFR, metformin use.
MRI / MRCP	Non-invasive: views liver, pancreas, bile ducts.	Screen for metal implants and claustrophobia.
ERCP (Endoscopic Retrograde Cholangiopancreatography)	Invasive: view/treats biliary/pancreatic duct issues (e.g., stones, strictures).	Monitor gag reflex, VS, pain, bleeding, and signs of pancreatitis.

ENDOSCOPIC RETROGRADE CHOLANGIOPANCREATOGRAPHY (ERCP)

Diagnosis and Treatment in One Procedure

Uses an endoscope to visualize and treat problems in the bile ducts, pancreatic ducts, and gallbladder.



Post-ERCP Pancreatitis (PEP)

Most common complication of ERCP and may occur from mild inflammation to severe, life-threatening pancreatitis.

RN FLASH TIP!

- ☑ Epigastric pain radiating to the back post-procedure = PEP (Severe PEP → Sepsis → ARDS).
- ☑ Priority: NPO + assess VS/pain/abdomen + notify provider + prepare IV fluids and pain control.

KEY TAKEAWAYS

- ☑ Know the purpose, preparation, and safety considerations for each test.
- ☑ Monitor for complications and report abnormal findings.
- ☑ Patient education and proper preparation improve test acccuracy and safety.
- ☑ Your knowledge makes a difference in patient outcomes!

"Accurate Tests. Appropriate Care. Better Outcomes."

NURSING IMPLICATIONS

- ☑ Provide pre- and post-procedure teaching.
- ☑ Ensure safety and comfort.
- ☑ Monitor for complications.
- ☑ Communicate and document significant findings.
- ☑ Collaborate with the healthcare team.

Same Passion. Greater Impact!



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COMPETENT NURSES | SAFER PATIENTS | HEALTHIER COMMUNITIES

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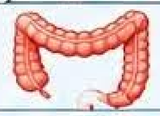
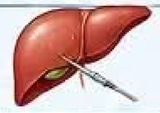
Assessment Guides Care. Knowledge Saves Lives.

GASTROINTESTINAL
COMMON TESTS / PROCEDURES II

ASSESS • PREPARE • MONITOR • ENSURE SAFETY

Competent Nurses Build Healthier Communities.

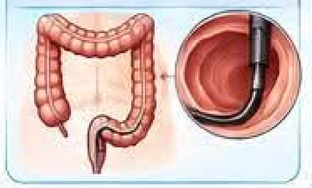
SAME PASSION. GREATER IMPACT.

TEST / PROCEDURE	PURPOSE	SAFETY / NURSING CONSIDERATIONS
 **EGD / Upper endoscopy**	Views esophagus, stomach, duodenum.	NPO before; after procedure, check gag reflex before PO intake.
 **Colonoscopy**	Screens for colon cancer, polyps, bleeding.	Bowel prep; after procedure monitor for bleeding/perforation.
 **Sigmoidoscopy**	Views rectum and sigmoid colon.	Monitor for bleeding, abdominal pain, and signs of perforation.
 **Capsule endoscopy ("PillCam")**	Views small bowel through a swallowed pill-size camera.	Swallow capsule; monitor passage in stool (24–48 hours).
 **Liver biopsy**	Obtains liver tissue sample.	Check PT/INR/platelets; after procedure, right side-lying, monitor for bleeding.
 **Paracentesis**	Removes ascitic fluid from abdomen.	Instruct client to void before procedure; monitor BP and fluid shift.
 **NG tube insertion**	Decompression, feeding, lavage, medications.	Confirm placement (X-ray); monitor aspiration and drainage.
 **Gastric lavage**	Removes stomach contents or clots from GI bleeding.	Protect airway; aspiration risk; monitor electrolytes and metabolic alkalosis.
 **PEG tube placement**	Long-term enteral feeding.	Monitor site for infection, aspiration, and tube patency.

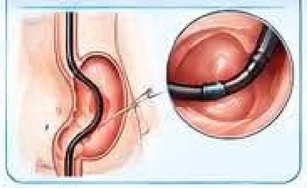
EGD / Upper Endoscopy



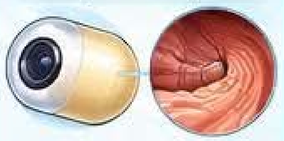
Colonoscopy



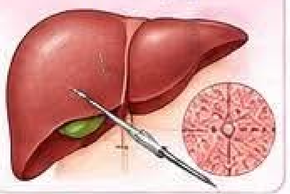
Sigmoidoscopy



Capsule Endoscopy ("PillCam")



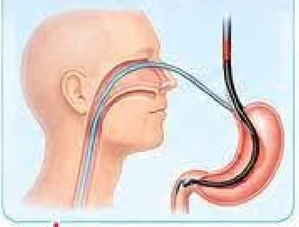
Liver Biopsy



Paracentesis



NG Tube Insertion



Gastric Lavage



PEG Tube Placement



RN FLASH TIP!

- ☑ Position during procedures: Supine with right arm above head.
- ☑ After liver biopsy: Place on right side to apply pressure to biopsy site to prevent bleeding/hematoma.
- ☑ Right shoulder pain, hypotension, tachycardia, or abdominal distention may indicate bleeding.



Sir Pol

KEY TAKEAWAYS

- ☑ Know the purpose and proper preparation for each procedure.
- ☑ Prioritize patient safety and monitor for complications.
- ☑ Patient teaching improves cooperation and outcomes.
- ☑ Early detection and appropriate procedure lead to better care.

NURSING IMPLICATIONS

- ☑ Provide pre- and post-procedure care.
- ☑ Monitor for adverse effects and complications.
- ☑ Educate patient and family.
- ☑ Collaborate with the healthcare team.

More Knowledge. Better Care. Brighter Tomorrows.

NURSING: MORE THAN A PROFESSION, A GREATER PURPOSE.

COMPETENT NURSES | SAFER PATIENTS | HEALTHIER COMMUNITIES

GASTROINTESTINAL SYSTEM

COMMON TESTS / PROCEDURES III

Know the Purpose. Ensure Safety. Make a Difference.

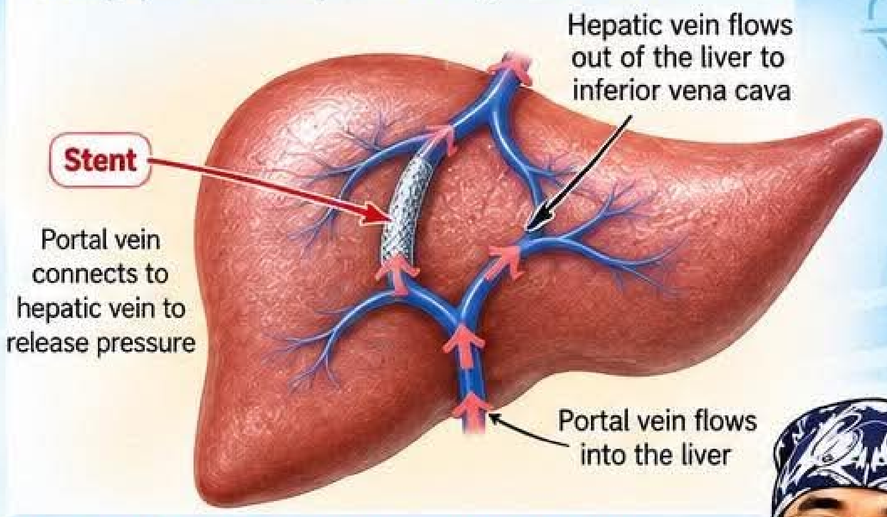
Nursing Knowledge Today, Better Care Tomorrow.

LEARN. PRACTICE. APPLY. LEAD.

TEST / PROCEDURE	PURPOSE	SAFETY CONSIDERATIONS
TPN via central line	Provides IV nutrition	Monitor glucose, infection, line care; do not stop abruptly.
Bowel resection	Removes diseased bowel segment	Monitor bleeding, bowel sounds, infection, anastomotic leak.
Ostomy creation/care	Diverts stool through stoma	Stoma should be pink/red and moist; report dusky/black.
Continent ileostomy " Kock pouch "	Stores stool internally post colon/rectum removal	Monitor for blockage/infection/ irritation, DHN.
Esophageal variceal banding	Controls variceal bleeding	Monitor airway, bleeding, shock, aspiration.
TIPS procedure	End-stage cirrhosis; Reduces portal hypertenstion	Monitor bleeding and hepatic encephalopathy.
Appendectomy	Removes inflamed appendix	Pre-op: NPO; no heat, laxatives, or enemas.
Cholecystectomy	Removes gallbladder	Monitor bile leak, bleeding, infection.
Hemorrhoidectomy	Removes hemorrhoids	Monitor bleeding, urinary retention, pain.

TIPS PROCEDURE

Transjugular Intrahepatic Portosystemic Shunt

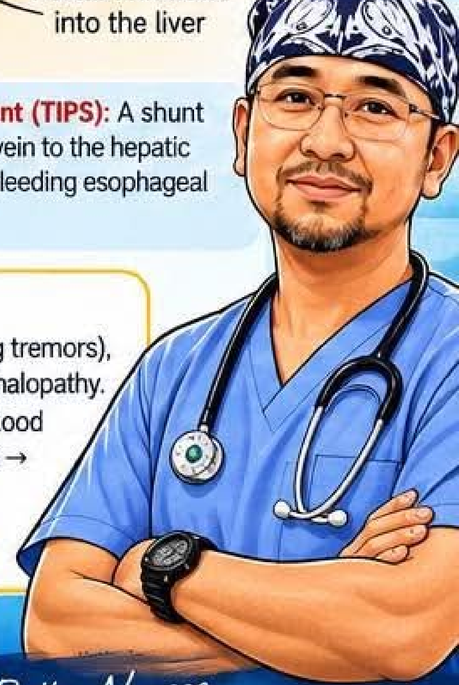


Transjugular Intrahepatic Portosystemic Shunt (TIPS): A shunt is placed inside the liver to connect the portal vein to the hepatic vein to reduce portal hypertension, recurrent bleeding esophageal varices, and severe ascites.

RN FLASH TIP:

- Watch for new confusion, asterixis (flapping tremors), ↓ LOC after TIPS = possible hepatic encephalopathy.
- Hepatic encephalopathy occurs because blood bypasses liver detoxification → ↑ ammonia → confusion.

Think. Assess. Act. Save Lives.





Nursing is a Work of Heart ♡

KNOW · PRACTICE · CARE · LEAD

"Better Nurses Build a Healthier Tomorrow."
– SIR POL

From Assessment to Action.

GASTROINTESTINAL SYSTEM

COMMON DISORDERS I

Recognize Early. Prioritize Care. Make a Difference.

KNOW *The Signs* · **PRIORITIZE** *Care* · **PROMOTE** *Better Outcomes*

Same Passion. Brighter Nurses Tomorrow.

DISORDER	KEY FEATURES	NURSING PRIORITIES
GERD (High Sowlers)	Heartburn, reflux ↑ after meals/lying	HOB ↑; avoid triggers; teach PPI/H2 use (Head of Bed → Reduce stomach acid)
Peptic ulcer disease (PUD)	Epigastric burning; possible GI bleed; linked to *H. pylori* / NSAIDs	Monitor bleeding: melena, hematemesis, ↓BP, ↑HR (hypovolemic shock)
GI Bleed	Hematemesis, coffee-ground emesis, melena, hematochezia	Assess ABCs, watch for signs of hypovolemic shock, IV access, fluids, blood
Appendicitis (RLQ pain)	Periumbilical → RLQ pain, fever, N/V, rebound tenderness	NPO; no heat/laxatives/enemas; prep for surgery
Cholecystitis (RUQ pain)	RUQ pain ↑ after fatty food, N/V, fever, + Murphy sign (Patient Inhales)	Bowel rest: NPO; pain control; monitor infection
Pancreatitis (Pain at the back)	Severe epigastric pain → back, N/V, ↑ amylase/lipase	Bowel rest: NPO; fluids; pain control; monitor shock/↓Ca
Cirrhosis	Ascites, jaundice, edema, bleeding, confusion	Monitor bleeding, infection, fluid overload, encephalopathy
Hepatic Encephalopathy	Confusion, asterixis, ↑ ammonia, ↓ LOC (Flapping Tremor)	Lactulose as ordered; safety precautions (Lowers ammonia & flush toxins out of the Gut)
Esophageal Varices	Hematemesis + cirrhosis / portal HTN	Emergency: protect airway; IV access; monitor shock
Inflammatory Bowel Disease (IBD)	Crohn's = skip lesions; UC = continuous colon inflammation	Monitor hydration, nutrition, bleeding, flares

CASE SCENARIO

A 46-year-old client arrives at the ED with severe upper abdominal pain radiating to the back, nausea, vomiting, and abdominal tenderness after heavy alcohol intake. VS: T 100.9°F, HR 118, RR 24, BP 94/58. Lipase 890 U/L, amylase ↑, WBC 16,000/mm³, glucose 220 mg/dL. (Pancreatitis)

Think GI! Connect the Clues.

CUE	INTERPRETATION
Severe epigastric pain radiating to back	Classic pancreatitis pain
Nausea/vomiting	GI irritation and fluid loss
BP 94/58, HR 118, RR 24	Hypovolemia → Shock
Lipase 890, amylase ↑	Pancreatic inflammation
Glucose 220	Pancreatic endocrine involvement

RN FLASH TIP:

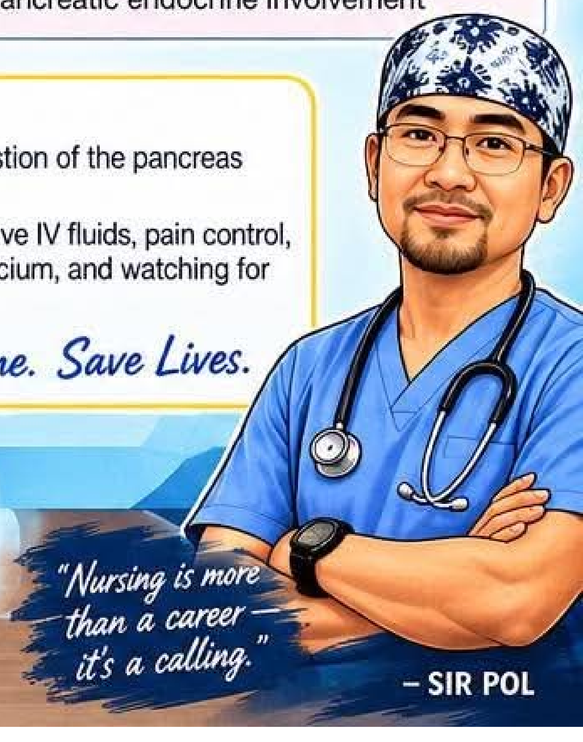
- Acute pancreatitis causes autodigestion of the pancreas and major fluid shifting.
- Priority care includes NPO, aggressive IV fluids, pain control, antiemetics, monitoring glucose/calcium, and watching for shock or respiratory distress.

Assess. Prioritize. Intervene. Save Lives.



Knowledge today. Better care tomorrow.

ASSESS · PLAN · IMPLEMENT · EVALUATE



"Nursing is more than a career — it's a calling."

– SIR POL

Abdomen Tells a Story Listen Closely.



GASTROINTESTINAL SYSTEM

COMMON DISORDERS II

Recognize. Prioritize. Intervene. Make a Difference.

Same Knowledge. Greater Impact.

DISORDER	KEY FEATURES	NURSING PRIORITIES
Irritable Bowel Syndrome (IBS)	Chronic abdominal pain + diarrhea / constipation; no inflammation	Diet teaching; stress control; symptom management
Diverticular Disease	Diverticulitis: LLQ pain, fever, bowel changes	Bowel rest; antibiotics; monitor perforation
Bowel Obstruction	Distention, N/V, constipation, ↑ or (–) bowel sounds	NPO; NG decompression; monitor I&O/electrolytes
Peritonitis	Board-like abdomen, severe pain, fever, rebound tenderness	Emergency: NPO; IV antibiotics; prep for surgery
Hernia	Bulge ↑ with cough/strain	Watch strangulation: severe pain, vomiting, fever, nonreducible
Pyloric Stenosis	Projectile non-bilious vomiting; olive mass	Correct fluids/electrolytes before surgery
Intussusception	Intermittent pain, knees-to-chest, currant jelly stool	Monitor obstruction/shock; prep air/barium enema
Hirschsprung Disease	No meconium, distention, constipation, ribbon stools	Monitor obstruction; prep rectal biopsy/surgery
Celiac Disease	Gluten intolerance, diarrhea, wt loss, malabsorption	Gluten-free diet: no wheat/barley/rye

CASE SCENARIO



A 19-year-old client arrives at the ED with abdominal pain that started near the umbilicus and moved to the right lower quadrant. The client now has rigid abdomen, rebound tenderness, fever, nausea, and worsening pain.

VS: T 102.2°F, HR 124, RR 26, BP 92/56. WBC 18,500/mm³.

CUE	INTERPRETATION
RLQ pain after periumbilical pain	Classic appendicitis pattern
Rigid abdomen/rebound tenderness	Possible peritonitis
Fever, ↑ WBC	Infection/inflammation
BP 92/56, HR 124	Possible sepsis/shock
Worsening pain after appendicitis symptoms	Possible rupture/perforation

RN FLASH TIP:

- **Peritonitis from ruptured appendicitis is an emergency.** Prioritize NPO, IV fluids, IV antibiotics, pain control, sepsis monitoring, and preparation for surgery.

Early Recognition Saves Lives.



Learn. Care. Lead. ♡

ASSESS · PRIORITIZE · INTERVENE · IMPROVE



"Nursing Today for Healthier Tomorrows." — SIR POL

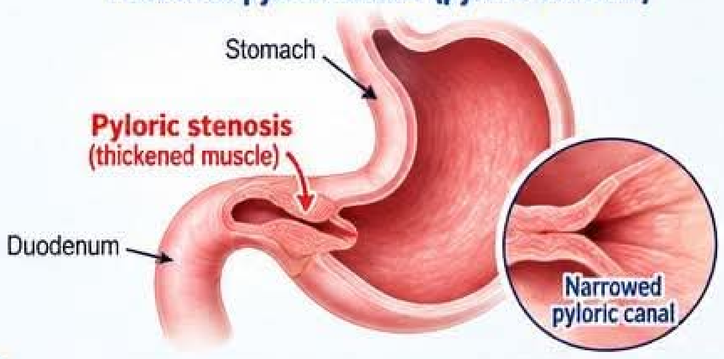
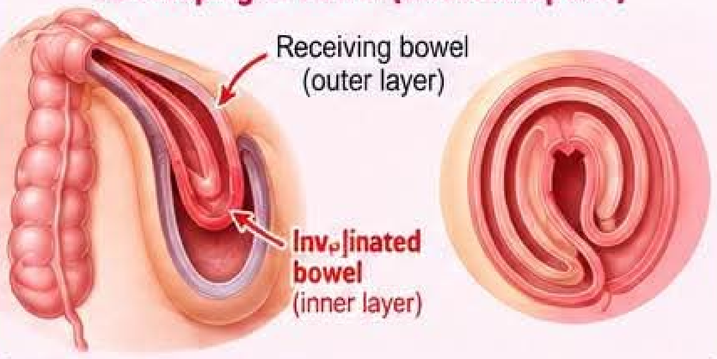


Know
Assess
Intervene
Make a Difference.

PYLORIC STENOSIS | INTUSSUSCEPTION | HIRSCHSPRUNG DISEASE

Different Causes. Similar Presentations of Obstruction. Different Management. Better Outcomes.

Compassionate Nurses. Healthier Communities Tomorrow.

Category	PYLORIC STENOSIS	INTUSSUSCEPTION	HIRSCHSPRUNG DISEASE
Key features	• Thickened pyloric valve → gastric outlet obstruction • Projectile non-bilious vomiting • Hungry after vomiting • Olive-shaped mass (palpable) • Dehydration, metabolic alkalosis (↓ Cl^-, ↓ K^+) • Unknown cause (multifactorial)	• Telescoping of bowel (usually ileum into colon) • Sudden intermittent, severe abdominal pain (colicky, knees-to-chest) • Crying episodes • Vomiting • Currant jelly stool (blood + mucus) • Sausage-shaped abdominal mass (palpable) • Often idiopathic (may follow viral illness)	• Aganglionic megacolon (absence of ganglion cells in distal colon) • Failure to pass meconium within 24–48 hours • Abdominal distention • Chronic constipation • Ribbon-like or foul-smelling stools • ↓ Peristalsis due to absence of ganglion cells (inhibitory neurons)
Priority	Correct fluid and electrolyte imbalances first; NPO, IV fluids; prepare for pyloromyotomy.	Monitor for bowel obstruction, ischemia, perforation, shock; prepare for air or barium enema (reduction) or surgery if needed.	Monitor bowel obstruction and enterocolitis; rectal biopsy for diagnosis; bowel decompression if ordered; surgery (pull-through).
Classic clue	Projectile non-bilious vomiting; hungry after vomiting; olive-shaped mass.	Currant jelly stool; sausage-shaped mass.	No meconium within 24–48 hours; ribbon-like/foul stools.
Illustration	**Thickened pyloric muscle (pyloric stenosis)** 	**Telescoping of bowel (intussusception)** 	**Aganglionic megacolon (Hirschsprung disease)** 
Nursing care & Management	• NPO, IV fluids, correct electrolytes (↓ Cl^-, ↓ K^+) • Monitor I&O, daily weights • Prepare for pyloromyotomy (Ramstedt procedure) • Post-op: gradual feeding, monitor for vomiting	• NPO, IV fluids • Monitor VS, I&O, signs of shock • Prepare for air or barium enema (diagnostic + therapeutic) • Surgery if enema fails or complications present • Provide pain management and emotional support	• Assess for abdominal distention, bowel sounds and output • Monitor for signs of enterocolitis (fever, diarrhea, distention) • Rectal biopsy (diagnosis) • Bowel decompression (rectal irrigation) if ordered • Surgical management (pull-through procedure) • Parent education and long-term follow-up
Complications	• Dehydration, electrolyte imbalances • Poor weight gain • Aspiration (risk from vomiting)	• Bowel obstruction • Intestinal ischemia • Perforation → peritonitis • Shock	• Bowel obstruction • Enterocolitis (life-threatening) • Chronic constipation • Megacolon



Know
Assess
Intervene
Make a Difference.♡

HERNIA

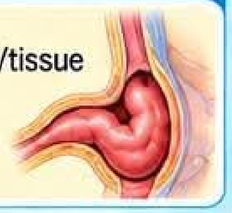
Protrusion of an Organ or Tissue Through a Weakened Muscle Wall.

Different Types. Recognize Complications. Timely Management. Better Outcomes.

Compassionate Nurses. Healthier Communities Tomorrow.

DEFINITION

Protrusion of an organ/tissue through a weakened muscle wall.



COMMON CAUSES

- Weak abdominal wall
- Heavy lifting
- Chronic cough
- Straining (constipation, pregnancy).
- Obesity
- Previous surgery (incisional)
- Aging



TYPES OF HERNIA

INGUINAL HERNIA (most common)



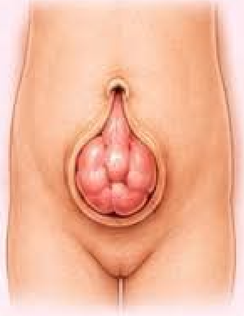
Protrudes through inguinal canal. More common in males.

FEMORAL HERNIA



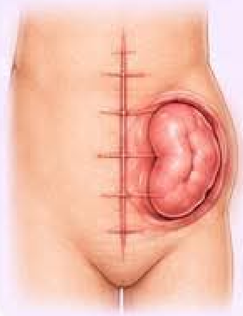
Protrudes below inguinal ligament. More common in females.

UMBILICAL HERNIA



At the umbilicus. Common in infants (obesity, pregnancy, ascites in adults).

INCISIONAL HERNIA



Occurs at site of previous surgical incision.

HIATAL HERNIA



Part of the stomach pushes through diaphragm into chest.

HERNIA STATES

REDUCIBLE HERNIA



- Can be pushed back into place
- Usually not an emergency
- Monitor for changes

INCARCERATED HERNIA



- Trapped and cannot be pushed back
- Risk for obstruction and strangulation

STRANGULATED HERNIA



- Blood supply is cut off
- **Emergency:** risk for ischemia, necrosis, perforation

KEY FINDINGS

- ✔ Soft bulge or mass
- ✔ May increase with coughing, lifting, or straining
- ✔ Site-specific location
- ✔ May be painful or painless
- ✔ Assess for reducibility
- ✔ Check for signs of obstruction or strangulation



NURSING PRIORITIES

- Assess for signs of obstruction or strangulation (priority).
- Monitor pain, bowel sounds, abdominal distention.
- NPO if suspected obstruction or pre-surgery.
- Correct fluid and electrolyte imbalances.
- Prepare for diagnostic tests and possible surgery.

MANAGEMENT

- Avoid straining (treat constipation, manage cough).
- Support site (truss or binder if ordered).
- Pain control as prescribed.
- Surgical repair if symptomatic or complicated.
- Encourage weight management and healthy lifestyle.

COMPLICATIONS (WHY IT MATTERS)



Bowel obstruction



Ischemia / necrosis



Perforation → peritonitis



Sepsis

RN FLASH TIPS:

- Hernia + severe pain = strangulation (**EMERGENCY**).
- Nonreducible bulge + vomiting = obstruction.
- Fever + redness + severe tenderness = ischemia/infection.
- Rigid abdomen + rebound tenderness = perforation/peritonitis.

Know
Assess
Intervene
Make a Difference.♡

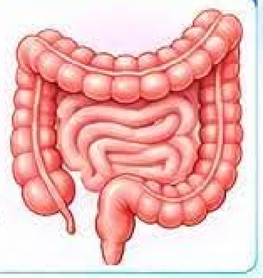
CELIAC DISEASE

An Autoimmune Reaction to Gluten. Damages the Small Intestine. Lifelong Gluten-Free Diet.

Compassionate Nurses. Healthier Communities Tomorrow.

WHAT IS CELIAC DISEASE?

Autoimmune reaction to gluten, usually after 6 months of exposure, causing damage to the small-intestine villi (enteropathy) → malabsorption.



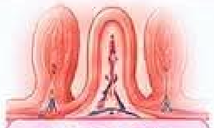
PATHOPHYSIOLOGY



Gluten intake (wheat, barley, rye, oats) →



Gliadin protein triggers autoimmune reaction →



Damage to small-intestine villi (inflammation and flattening) →

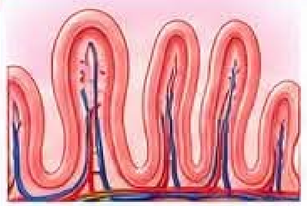


↓ Nutrient absorption →

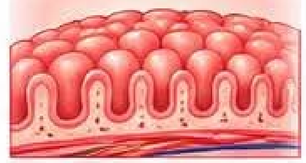


Diarrhea, bloating, weight loss

AFFECTED INTESTINAL VILLI



Normal villi (healthy absorption)



Celiac disease (flattened villi)

COMMON TRIGGER FOODS (CONTAINS GLUTEN)

- **W** Wheat
- **B** Barley
- **R** Rye
- **O** Oats



Regular oats are NOT OK. Use only certified gluten-free oats.

KEY SIGNS & SYMPTOMS



Diarrhea



Bloating



Abdominal pain/cramping



Weight loss



Fatigue



In children:

- Failure to thrive
- Poor growth
- Irritability
- Bulky/foul stools

NUTRIENT DEFICIENCIES (due to malabsorption)



Iron (anemia)



Folate (megaloblastic anemia)



Vitamin B12 (nerve function)



Calcium (bone health)



Vitamin D (bone health)

COMPLICATIONS



Anemia (iron, folate, B12)



Osteoporosis



Malnutrition (vitamin & mineral deficiencies)



Delayed growth (in children)

QUICK REFERENCE

Category	Key Points
Definition	Autoimmune reaction to gluten, usually after 6 months, damages small-intestine villi (enteropathy).
Trigger foods	Wheat, barley, rye, regular oats
Main problem	Gluten exposure → villous atrophy → malabsorption
Key symptoms	Diarrhea, bloating, abdominal pain, weight loss, fatigue
Children	Failure to thrive, poor growth, irritability, bulky/foul stools
Deficiencies	Iron, folate, B12, calcium, vitamin D
Complications	Anemia, osteoporosis, malnutrition, delayed growth
Management	Strict lifelong gluten-free diet; dietitian referral; monitor nutrition/labs

MANAGEMENT



Strict **LIFELONG** gluten-free diet (even small amounts can cause damage).



Dietitian referral for education and meal planning.



Monitor nutrition and laboratory tests (iron, folate, B12, calcium, vitamin D).



Choose naturally gluten-free foods: rice, corn, potatoes, fruits, vegetables, meat, fish, eggs, dairy (if tolerated).



Read labels for hidden gluten and prevent cross-contact.

FOOD CHOICES

GLUTEN-FREE (SAFE)



Rice



Corn



Potatoes



Fruits & vegetables



Meat / Fish Eggs



Dairy (if tolerated)

AVOID (CONTAINS GLUTEN)



Wheat (bread, pasta, noodles, cereal)



Barley (malt, beer, barley soup)



Rye (bread, crackers)



Regular oats (use only certified gluten-free oats)



Know
Assess
Intervene
Make a Difference. ♡

SAMPLE CASES

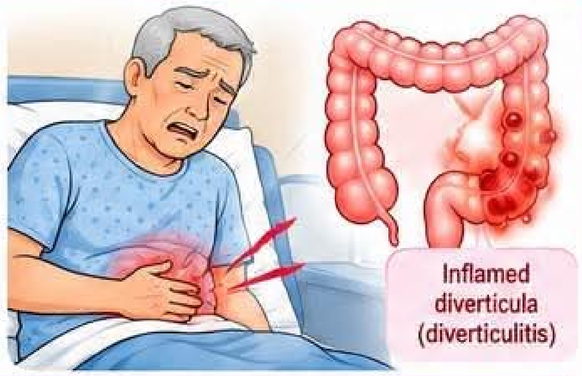
Apply What You Know. Find the Clues. Make the Right Decisions.

Compassionate Nurses. Healthier Communities Tomorrow.

CASE 1: ACUTE DIVERTICULITIS

A 64-year-old client comes to the emergency department with left lower quadrant abdominial pain, fever, nausea, and a change in bowel habits. The client reports a history of diverticulosis and asks, "Can I have a colonoscopy today to see what is going on?"

VS: T 101.9°F, HR 108, RR 22, BP 118/74, WBC 16,200/mm³.



Cue	Interpretation
LLQ abdominal pain	Classic location for diverticulitis
Fever (101.9°F) and ↑ WBC (16,200/mm³)	Inflammation/infection
Nausea and change in bowel habits	Bowel irritation
History of diverticulosis	Inflamed diverticula suspected
Asking for colonoscopy during flare	Colonoscopy is contraindicated during acute inflammation (↑ risk for perforation)

KEY TAKEAWAYS

- LLQ pain + fever + ↑ WBC = diverticulitis.
- Avoid colonoscopy, enemas, laxatives, and high-fiber foods during acute flare.
- Risk for complications: abscess, perforation, peritonitis, sepsis.

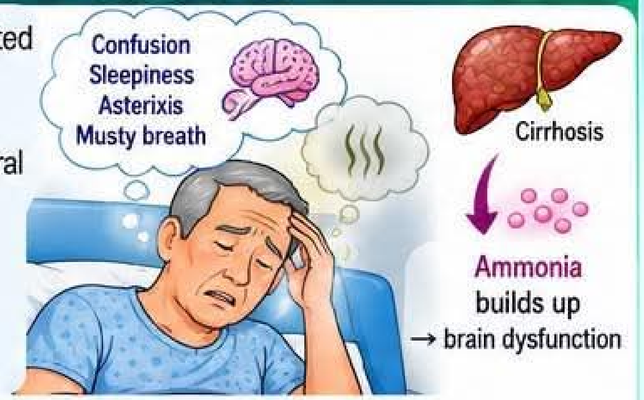
NURSING MANAGEMENT

- NPO / bowel rest (if moderate to severe).
- IV fluids and antibiotics (as ordered).
- Pain control.
- Monitor for complications (abscess, perforation, peritonitis).
- Educate: high-fiber diet after resolution to prevent recurrence.

CASE 2: HEPATIC ENCEPHALOPATHY (LIVER CIRRHOSIS)

A 58-year-old client with liver cirrhosis is admitted with increasing confusion, sleepiness, hand tremors, and a musty breath odor. The family reports the client has been constipated for several days.

Ammonia 96 mcg/dL, albumin 2.5 g/dL, INR 2.1.
VS: BP 104/66, HR 98, RR 20, SpO_2 95%.



Cue	Interpretation
Confusion and sleepiness	Possible hepatic encephalopathy
Ammonia 96 mcg/dL	↑ ammonia affecting brain function
Hand tremors / asterixis	Classic neurologic sign of encephalopathy
Constipation (several days)	Can worsen ammonia buildup
INR 2.1, low albumin (2.5 g/dL)	Poor liver function and impaired synthetic function

KEY TAKEAWAYS

- Confusion, sleepiness, and asterixis in a client with cirrhosis = hepatic encephalopathy.
- ↑ Ammonia and constipation worsen symptoms.
- Priority: ensure safety, prevent complications, and reduce ammonia.

NURSING MANAGEMENT

- Ensure safety (fall precautions, airway).
- Monitor neurologic status (LOC, asterixis).
- Administer lactulose (as ordered) to remove ammonia through stool.
- Monitor bowel movements; avoid constipation.
- Monitor labs (ammonia, electrolytes, liver function tests).
- Assess for signs of bleeding and infection.

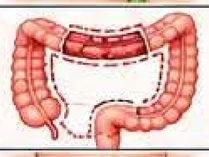
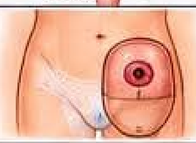
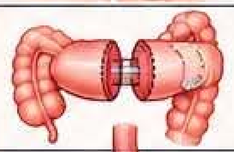
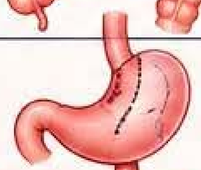
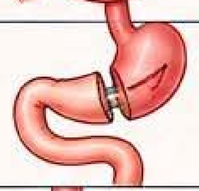
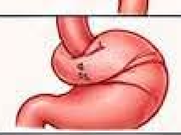


Know
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Intervene
Make a Difference. ♡

GASTROINTESTINAL SURGERIES

Different Procedures. Specific Purposes. Key Nursing Points.

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Surgery	Illustration	Purpose	Key Nursing Points
Appendectomy		Removes inflamed appendix	• Monitor for peritonitis: fever, worsening abdominal pain, rigid abdomen
Cholecystectomy		Removes gallbladder	• Watch for bile leak, jaundice, clay-colored stool, RUQ pain
Colectomy		Removes part or all of colon	• Monitor bowel function, bleeding, infection, and possible ostomy care
Colostomy / Ileostomy		Creates stool diversion through abdomen	• Assess stoma color; healthy stoma is pink/red and moist
Bowel Resection		Removes diseased bowel segment	• Monitor for anastomotic leak, peritonitis, fever, tachycardia, bowel function
Gastrectomy		Removes part or all of stomach	• Risk for dumping syndrome and nutritional deficiencies (B12, iron, calcium, vitamin D)
Gastric Bypass		Weight-loss surgery (Roux-en-Y)	• Teach small frequent meals, high protein, avoid fluids with meals, lifelong supplements (B12, iron, calcium, vitamin D)
Nissen Fundoplication		Treats severe GERD/hiatal hernia	• Avoid vomiting, heavy lifting, and gas-forming foods
Hernia Repair		Repairs weakened abdominal wall	• Report severe pain, swelling, fever, or inability to pass stool/gas
Hemorrhoidectomy		Removes hemorhoids	• Monitor bleeding; prevent constipation with fluids, fiber, stool softeners

DUMPING SYNDROME

DUMPING SYNDROME occurs when food moves too quickly from the stomach into the small intestine, usually after gastric surgery (e.g., gastrectomy or gastric bypass).



↓ Stomach storage / rapid gastric emptying
↓
Hyperosmolar food enters small intestine quickly
↓
Fluid shifts from bloodstream into intestine
↓
Intestinal distention + ↓ circulating volume
↓
Nausea, cramping, diarrhea, dizziness, tachycardia, sweating

NURSING CARE FOR DUMPING SYNDROME



Eat small frequent meals
Prevents rapid gastric emptying

High-protein, moderate-fat foods
Slows digestion and supports nutrition

Avoid simple sugars
Prevents rapid glucose shifts

Avoid drinking fluids with meals
Fluids speed gastric emptying

Drink fluids between meals
Maintains hydration without worsening symptoms

Lie down after meals as prescribed
Slows gastric emptying

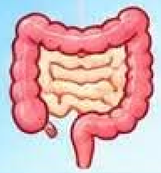
RN FLASH TIPS

- Dumping syndrome teaching = small frequent meals, high protein, avoid simple sugars, and separate fluids from meals.
- Monitor for dehydration (tachycardia, dizziness) due to fluid shifts.
- After gastric bypass or gastrectomy, monitor for nutritional deficiencies (B12, iron, calcium, vitamin D).
- Encourage lifelong follow-up and dietitian referral.
- Report severe abdominal pain, persistent vomiting, or signs of obstruction.





Know
Assess
Intervene
Make a Difference. ♡

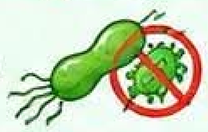


KEY MEDICATIONS
IN GASTROINTESTINAL SYSTEM I

Common Drugs. Clear Actions. Key Nursing Points. Better Care.



Compassionate Nurses. Healthier Communities Tomorrow.

Medication	Class	Indication (Uses for)	Main Action	Key Nursing Points
Omeprazole, Pantoprazole 	Proton pump inhibitors (PPIs)	GERD, PUD, GI bleed prevention 	↓Gastric acid production 	• Give before meals. • Increased risk for *C. diff* infection. 
Famotidine 	H2 receptor blockers	GERD, PUD	↓Gastric acid production 	• Used for mild/moderate acid control. 
Calcium carbonate, Mg^{2+} / Aluminum hydroxide 	Antacids	Heartburn, GERD symptoms	Neutralizes stomach acid 	• Fast relief. • Magnesium → diarrhea. • Aluminum/Calcium → constipation. 
Sucralfate 	Mucosal protectant	PUD, gastric irritation	Coats ulcer/protects mucosa 	• Give before meals. • Must be given separate from other medications (↓ absorption). 
Misoprostol 	Prostaglandin analog	NSAID-induced ulcers	Protects gastric lining 	• Avoid in pregnancy (uterine contractions). 
Amoxicillin, Clarithromycin, Metronidazole 	Antibiotics	PUD caused by *H. pylori*	Eradicates bacteria 	• Usually combined with a PPI. • Teach client to complete full course. 
Loperamide 	Antidiarrheal	IBS-D, diarrhea	Slows intestinal motility 	• Avoid in infectious diarrhea (e.g., *C. diff*). 
Polyethylene glycol, Docusate 	Laxatives / Stool softener	Constipation, IBS-C	Promotes bowel movement 	• Encourage fluids and fiber. 
Bismuth subsalicylate 	Antidiarrheal / GI Protectant	Diarrhea, dyspepsia, *H. pylori* regimen	Coats GI tract; mild antimicrobial effect 	• Avoid with aspirin allergy. • May darken stool/tongue (black color = expected). 
Ondansetron, Promethazine, Metoclopramide 	Antiemetics	Nausea/vomiting	Blocks vomiting signals in the brain and GI tract 	• Promethazine: sedation. • Metoclopramide: EPS (extrapyramidal symptoms). • Ondansetron: risk for serotonin syndrome (if taken with SSRIs/SNRIs). 

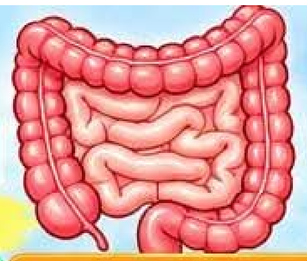


Know
Assess
Intervene
Make a Difference. ♡



KEY MEDICATIONS IN GASTROINTESTINAL SYSTEM II

Know the Medications. Understand the Purpose. Provide Safer, Better Care.



Compassionate Nurses. Healthier Communities Tomorrow.

Medication(s)	Class	Indication (Use for)	Main Action	Key Nursing Points
Mesalamine, sulfasalazine	Aminosalicylates / 5-ASA	IBD, especially ulcerative colitis (UC)	Decreases bowel inflammation	• Monitor for GI upset (nausea, diarrhea). • Adherence is important.
Prednisone, methylprednisolone	Corticosteroids	IBD flare	Strong anti-inflammatory	• Short-term use. • Monitor blood glucose, infection risk, mood changes.
Infliximab, adalimumab	Biologics / Anti-TNF	Moderate–severe IBD (Crohn's, UC)	Suppresses immune inflammation	• Screen for TB and other infections before therapy.
Dicyclomine	Antispasmodics	IBS cramping	Decreases bowel spasms	• Watch for dry mouth, blurred vision, urinary retention.
Pancrelipase	Pancreatic enzymes	Chronic pancreatitis, malabsorption	Helps digest fat/protein/carbohydrates	• Take with meals/snacks. • Do not crush or chew.
Lactulose	Osmotic laxative / Ammonia reducer	Hepatic encephalopathy	Traps/excretes ammonia in stool	• Goal: 2–3 soft stools per day. • Monitor bowel movements.
Albumin IV	Plasma expander	Large-volume paracentesis, ascites	Expands plasma volume	• Monitor for fluid overload (BP, lung sounds, edema).
Spironolactone, furosemide	Diuretics	Ascites from cirrhosis	Removes excess fluid	• Monitor K^+ (↑ with spironolactone, ↓ with furosemide), BP, daily weight, I&O.
Propranolol, nadolol	Nonselective β_1, β_2-blocker	Varices prevention	Decreases portal pressure	• Monitor ↓ BP and ↑ HR. • Watch for asthma risk (bronchospasm).
Octreotide	Somatostatin analog	Active variceal bleeding	Decreases portal blood flow	• Monitor for bradycardia or rhythm changes.
Ursodiol	Bile acid agent	Gallstones/bile disorders (e.g., cholesterol stones)	Improves bile flow; dissolves some stones	• Not for acute emergency; long-term use.
Cholestyramine	Bile acid sequestrant	Pruritus from bile salts	Binds bile acids in the gut	• Monitor for constipation. Give separate from other medications. (↓ absorption).

RN FLASH TIPS:

IBD meds (5-ASA, steroids, biologics)
- Monitor for infection.
- Teach adherence and follow-up.

Hepatic encephalopathy (lactulose)
- Goal: 2–3 soft stools/day.
- Monitor mental status and ammonia.

Variceal bleeding (octreotide, β-blockers)
- Monitor BP, HR, and bleeding.
- Octreotide: watch for bradycardia.

Always teach administration tips
- Take pancreatic enzymes with meals.
- Separate cholestyramine from other medications.

Small Changes Big Relief ♡

GASTROESOPHAGEAL REFLUX DISEASE (GERD)

Understand. Manage. Improve Quality of Life.

Healthy Habits Happier Tomorrows.

KEY POINTS

CATEGORY	DETAILS
Definition	Backflow of gastric acid/content into the esophagus due to weak or relaxed lower esophageal sphincter (LES).
Classic Symptoms	Heartburn, regurgitation, sour/bitter taste, chest discomfort after meals.
Worse with	Lying down, bending, large meals, fatty/spicy foods, caffeine, chocolate, peppermint, alcohol, smoking.
Ressible Respiratory Symptoms	Chronic cough, hoarseness, wheezing, sore throat due to aspiration/irritation.
Complications	Esophagitis, stricture, Barrett esophagus (cancer risk), aspiration risk.
Management	Reduce reflux, prevent aspiration, promote symptom control, teach lifestyle changes.



It's not just heartburn — it's a quality of life issue.

KEY INTERVENTIONS

- Elevate head of bed 30–45° → ↓ reflux and aspiration risk
- Stay upright 2–3 hours after meals → prevents acid backflow
- Small, frequent meals → ↓ gastric pressure
- Avoid late-night meals → ↓ nighttime reflux
- Avoid trigger foods → fatty foods, caffeine, chocolate, peppermint, spicy foods
- Weight loss if overweight → ↓ abdominal pressure
- Stop smoking → smoking weakens LES
- No tight clothing → ↓ stomach pressure
- Take PPIs before meals → most effective before eating

KEY MEDICATIONS

Antacids	Calcium carbonate, magnesium/aluminum hydroxide
H2 blockers	Famotidine
PPIs	Omeprazole, pantoprazole

RISK FACTORS / TRIGGERS

- Weak lower esophageal sphincter (LES)
- Hiatal hernia
- Obesity
- Smoking
- Large/fatty meals

↓

LES weakens/relaxes

↓

Acid refluxes into esophagus

↓

Esophageal irritation/ inflammation

↓

Heartburn, regurgitation, sour taste, cough/hoarseness

↓

Esophagitis → dysphagia/bleeding/stricture

COMPLICATION

Barrett esophagus → ↑ esophageal cancer risk

RED FLAGS

- **Dysphagia** – Possible stricture or cancer concern
- **GI bleeding** – Possible ulcer/esophagitis complication
- **Unintentional weight loss** – Further evaluation (e.g., cancer, stricture)
- **Persistent vomiting** – Risk for dehydration, electrolyte loss
- **Chest pain** – Rule out cardiac cause; ECG, markers



KNOW THE BASICS · APPLY IN PRACTICE · PROMOTE HEALTH · MAKE A DIFFERENCE

Nursing Beyond Knowledge — Into Better Lives. ♡



Teach. Inspire. Empower.
— SIR POL

Know Understand Apply Make a Difference. ♡



PEPTIC ULCER DISEASE (PUD)

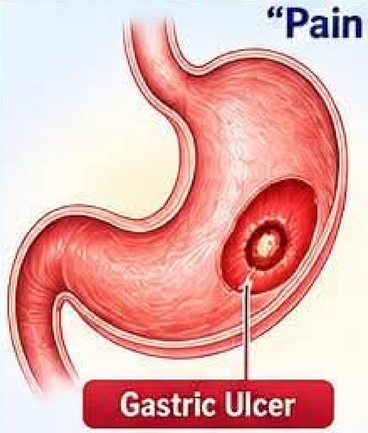
MORE THAN JUST A STOMACH ACHE

Different Location. Similar Causes. Same Nursing Care.

Better Nurses. Brighter Tomorrows.

GASTRIC ULCER

"Pain with Meals"



Ulcer in the stomach (less common)

Food enters stomach
↓
Acid secretion + stomach stretching
↓
Pain ↑ with meals
↓
Client may avoid eating
↓
Weight loss

COMPLICATIONS

- **Bleeding** → hematemesis/melena
- **Perforation** → sudden severe pain + rigid abdomen
- **Obstruction** → vomiting + early satiety

CASTRIC ULCER: KEY POINTS

- ✓ Pain ↑ with meals
- ✓ Weight loss common
- ✓ Pattern: Eats → pain → avoids food
- ✓ Acid level: Normal or ↓ acid
- ✓ Risk: NSAIDs, H. pylori, smoking

CATEGORY	KEY POINTS
Common Causes	*H. pylori*, NSAIDs, aspirin, smoking, alcohol, severe stress/ critical illness
Main Symptom	Burning/gnawing epigastric pain
Bleeding Signs	Hematemesis, coffee-ground emesis, melena, fatigue, dizziness
Management	PPI/H2 blocker/antacids; *H. pylori:* Clarithromycin + Amoxicillin (plus PPI); avoid NSAIDs, stop smoking
Obstruction Signs	Nausea/vomiting, abdominal distention, early satiety
Perforation Signs	Sudden severe abdominal pain, rigid/board-like abdomen, rebound tenderness → Peritonitis

DUODENAL ULCER

"Pain 2–3 Hours After Meals or at Night"



Ulcer in the duodenum (more common)

Acid enters duodenum
↓
Food buffers acid temporarily
↓
Pain ↓ with meals
↓
Pain returns 2–3 hr later or at night
↓
Client may eat more for relief
↓
Weight gain possible

COMPLICATIONS

- **Bleeding** → melena
- **Perforation** → sudden severe pain + rigid abdomen
- **Obstruction** → vomiting + distention

DUODENAL ULCER: KEY POINTS

- ✓ Pain ↓ with meals
- ✓ Weight gain possible
- ✓ Pattern: Eats → relief → pain returns
- ✓ Acid level: ↑ acid common
- ✓ Risk: H. pylori, ↑ acid, smoking

NURSING CARE & TEACHING POINTS

- Diet Modification
- Stop Smoking
- Take Medications as Prescribed
- Manage Stress
- Promote Rest & Healing
- Monitor for Bleeding & Complications

Relieve Pain. Prevent Complications. Promote Healing. ♡



KNOW · PRACTICE · CARE · LEAD

Small Knowledge Creates a Big Difference. ♡



"Assess" Think Act Make a Difference.



APPENDICITIS

Small Organ. Big Problems.

Early Recognition. Timely Intervention. Better Outcomes.

"Knowledge in Action. Compassion in Care."

NURSING MAKES A DIFFERENCE

CATEGORY	KEY POINTS
Definition	Inflammation/infection of the appendix, often from obstruction.
Classic pain	Periumbilical pain → shifts to RLQ (McBurney).
Key signs	RLQ tenderness, rebound tenderness, fever, nausea/vomiting, ↑ WBC.
Signs of appendiceal irritation	Psoas sign, Obturator sign, Rovsing sign, and Blumberg sign (peritonitis).
Priority	Rupture → peritonitis → sepsis.
Treatment	NPO, IV fluids, antibiotics, pain control, appendectomy (if ruptured, severe).
Avoid	No heat, laxatives, or enemas → may increase rupture risk.

PATHOPHYSIOLOGY

Appendix obstruction
Fecalith, undigested seeds, pinworm infections, lymphoid hyperplasia

↓

Mucus + bacteria trapped

↓

Inflammation + swelling

↓

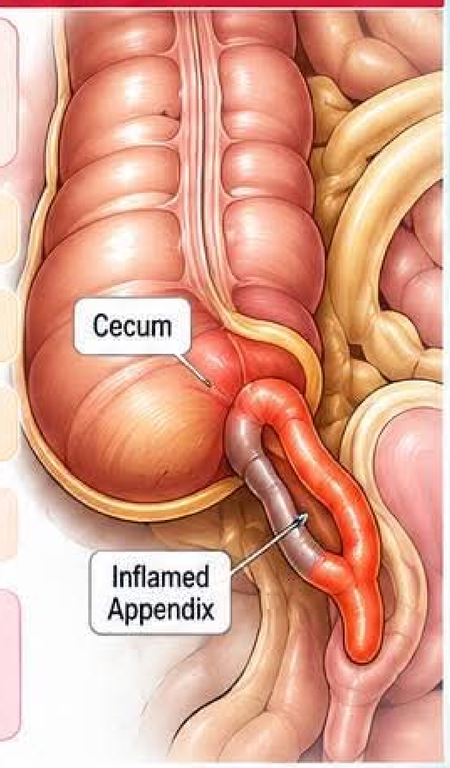
↓ Blood flow to appendix

↓

RLQ pain + fever + N/V

↓

Complication:
Rupture/perforation → Peritonitis → Sepsis



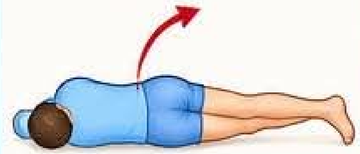
SPECIAL SIGNS

Obturator Sign
RLQ pain with internal rotation of flexed right hip.



Positive: RLQ pain

Psoas Sign
RLQ pain with extension of the right hip.



Positive: RLQ pain

Rovsing Sign
RLQ pain when LLQ is palpated.



Positive: RLQ pain

Blumberg Sign
Pain when pressure is released (rebound tenderness).



Positive: Rebound pain

RN FLASH TIP:

- Administer prescribed analgesics but avoid delaying surgery or masking worsening signs.
- Opioids (morphine IV, hydromorphone IV for moderate–severe pain; fentanyl for severe pain; acetaminophen may be used for fever/mild pain).

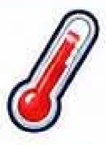
CLINICAL MANIFESTATIONS



Anorexia



Nausea/ Vomiting



Fever

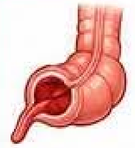


RLQ Pain (McBurney)



↑ WBC

POSSIBLE COMPLICATIONS



Perforation



Peritonitis



Bowel Obstruction



Sepsis



"Same Care. A Healthier Tomorrow."

ASSESS PLAN INTERVENE EVALUATE

"Nursing Changes Lives. — SIR POL

Know
Assess
Intervene
Make a Difference.



PANCREATITIS

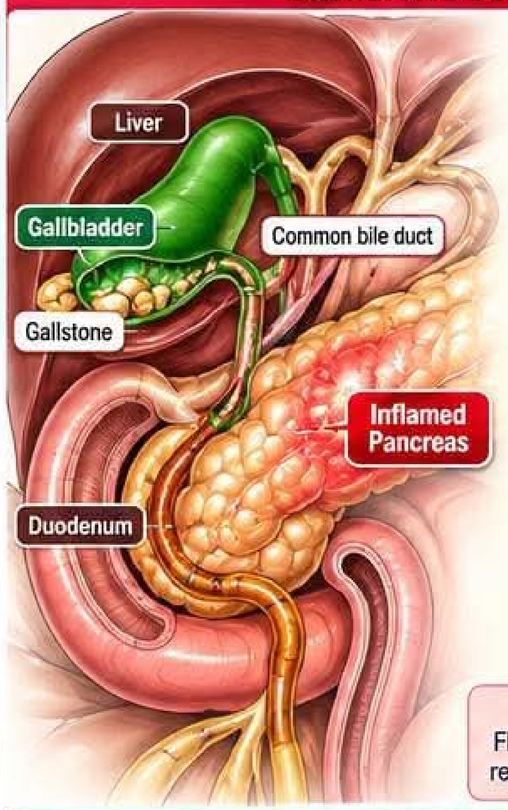
Inflamed Pancreas, Serious Consequences.

Early Recognition. Prompt Management. Better Outcomes.

Compassionate Nurses. Healthier Communities Tomorrow.

CATEGORY	KEY POINTS
Definition	Inflammation of the pancreas → enzymes activate early and digest pancreas tissue.
Common causes	Gallstones, alcohol use, ↑ triglyceride, ERCP, trauma, HIV medicines, valproic acid, etc.
Classic pain	Severe epigastric/LUQ pain radiates to back; relieved by sitting up, leaning forward.
Key signs	N/V, fever, tachycardia, abdominal tenderness/distention; Severe: Grey Turner / Cullen sign.
Tests	↑ Lipase (specific); ↑ amylase; potential ↓ Ca^{2+} (fat necrosis).
Management	Bowel rest: NPO, IV fluids, IV opioids, antiemetics, monitor VS/O_2/I&O/labs; low-fat diet + avoid alcohol.
Pain / Nausea	Pain: hydromorphone, morphine, fentanyl; N/V: ondansetron, metoclopramide.
Priority	Fluid loss, shock, hypocalcemia, respiratory distress/ARDS, sepsis.

PATHOPHYSIOLOGY



Gallstones / alcohol / ERCP / trauma
↓
Pancreatic duct obstruction or injury
↓
Digestive enzymes activate too early
↓
Autodigestion of pancreas
↓
Inflammation + edema
↓
Severe epigastric pain → back + N/V
↓
Fluid shifts into abdomen
↓
Hypovolemia → hypotension/shock
↓
Systemic inflammation
↓

Complications:
Fluid loss, shock, hypocalcemia, respiratory distress/ARDS, sepsis

CLINICAL MANIFESTATIONS

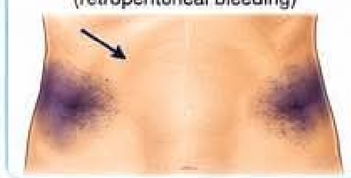


Severe epigastric/LUQ pain radiating to back (relieved by sitting up, leaning forward)

- Nausea/Vomiting
- Fever
- Tachycardia
- Abdominal tenderness and distention

SPECIAL SIGNS (SEVERE PANCREATITIS)

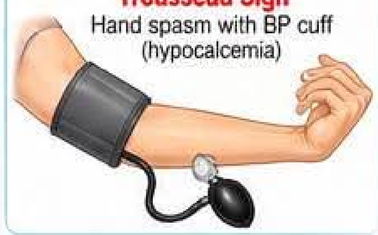
Grey Turner Sign
Bluish-purple bruising on the flanks (retroperitoneal bleeding)



Cullen Sign
Bluish-purple bruising around the umbilicus (intra-abdominal bleeding)



Trousseau Sign
Hand spasm with BP cuff (hypocalcemia)



Chvostek Sign
Cheek tap → facial twitch (hypocalcemia)



DIAGNOSTIC TESTS

- ↑ Lipase (more specific)
- ↑ Amylase (early)
- ↓ Calcium (fat necrosis)
- LFTs/Bilirubin (if biliary cause)
- CT Scan (assess severity and complications)

NURSING INTERVENTIONS

- NPO (bowel rest)
- IV Fluids (maintain perfusion)
- Pain Management (opioids)
- Antiemetics (ondansetron)
- Monitor VS, O_2, I&O, labs
- Low-fat diet (when indicated)

POSSIBLE COMPLICATIONS

- Pancreatic Necrosis
- Pseudocyst
- ARDS (respiratory distress)
- Sepsis

RN FLASH TIP:

Severe epigastric pain radiating to the back + ↑ lipase = pancreatitis.

- Severe pain + ↓BP + ↑ HR → shock.
- ↓ Ca^{2+} + tetany/tingling → fat necrosis/hypocalcemia.
- SOB + crackles + ↓O_2 → ARDS.
- Fever + ↑ WBC + worsening pain → infection/necrosis.



Knowledge in Action. Better Care.

UNDERSTAND · ASSESS · INTERVENE · IMPROVE

Same Care. A Healthier Tomorrow.
— SIR POL

Know
Understand
Apply
Make a Difference. ♡



CIRRHOSIS

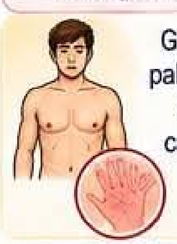
Chronic Scarring. Greater Challenges. Comprehensive Care.

Early Recognition. Better Care. Brighter Tomorrows.

LIVER FUNCTION → LIVER CIRRHOSIS

Impaired Estrogen Metabolism

Inactivates harmful estrogen metabolites



Gynecomastia, palmar erythema, spider nevi, caput medusae

↓ Albumin Synthesis



Maintains oncotic pressure

Ascites, edema

Impaired Bile Production

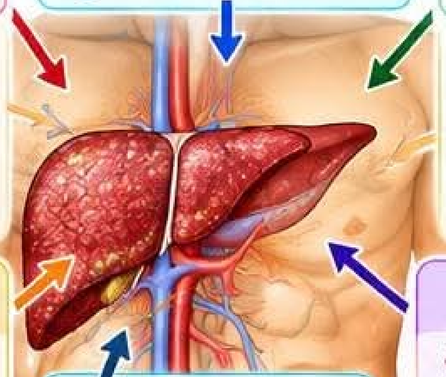


Breaks down fats in the duodenum



Jaundice, pruritus, clay colored stool and dark urine





Impaired Glucose Metabolism & Iron Storage

Source of energy, HgB processing



Weakness, fatigue, weight loss

↓ Clotting Factors

Hemostasis

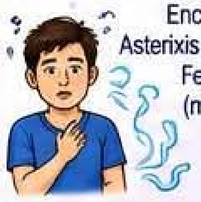


Easy bruising, bleeding

Detoxification



Converts ammonia to urea



Encephalopathy
Asterixis (flappy tremors), Fetor hepaticus (musty breath)

CATEGORY	KEY POINTS
Definition	Chronic liver scarring/fibrosis → ↓ liver function
Common causes	Alcohol use (Laennec's cirrhosis), hepatitis B/C, fatty liver disease
Key signs	Jaundice, ascites, edema, fatigue, weight loss, pruritus
Portal HTN signs	Ascites, splenomegaly, esophageal varices, caput medusae
Bleeding risk	↓ clotting factors + ↓ platelets → bruising/bleeding
Neurologic signs	Confusion, asterixis, ↓ LOC → hepatic encephalopathy
Laboratory tests / Diagnostics	↑ bilirubin, ↑ AST/ALT, ↑ PT/INR, ↓ albumin, ↑ ammonia Gold standard: Liver biopsy
Management	Low Na diet, diuretics, lactulose, bleeding precautions, paracentesis/TIPS (end-stage)
Priority	Portal HTN → esophageal varices; fluid overload; hepatorenal syndrome; encephalopathy; infection; bleeding → shock

CLINICAL MANIFESTATIONS

Jaundice



Ascites



Edema



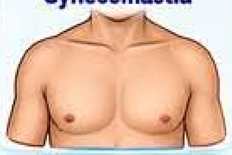
Spider nevi



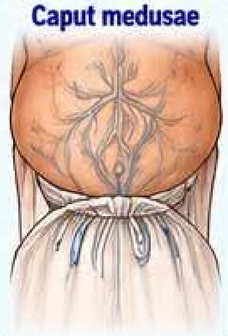
Palmar erythema



Gynecomastia



Caput medusae



Asterixis



Fetor hepaticus



RN FLASH TIP:

- Hematemesis/melena + cirrhosis → ruptured varices
- Confusion + asterixis + ↑ ammonia → hepatic encephalopathy
- Fever + abdominal pain + ascites → spontaneous bacterial peritonitis
- ↓ BP + ↑ HR + vomiting blood → hypovolemic shock
- Ascites + ↑ creatinine + ↓ urine output → hepatorenal syndrome.

Same Care. A Healthier Tomorrow. ♡



Nursing Knowledge into Real Impact. ♡

DIAGNOSTIC TESTS



↑ Bilirubin



↑ AST/ALT



↑ PT/INR



↓ Albumin



↑ Ammonia



Liver Biopsy (Gold Standard)



ASSESS · PLAN · IMPLEMENT · EVALUATE

Compassionate Nurses. Healthier Communities.
— SIR POL

Assess
Understand
Prioritize
Make a Difference. ♡

CIRRHOSIS → PRIORITIES

Different Complications. Focused Priorities. Better Outcomes.

Compassionate Nurses. Healthier Communities. Tomorrow.

ASCITES / FLUID OVERLOAD

Chronic liver scarring (Cirrhosis)

- Portal hypertension + ↓ albumin
- ↑ Hydrostatic pressure + ↓ oncotic pressure
- Fluid shifts out of blood vessels
- Fluid collects in peritoneal cavity
- **Ascites**

- Poor liver perfusion
- RAAS / ADH activation
- $Na^+ + H_2O$ retention
- More fluid overload worsening ascites
- Abdominal distention + weight gain + SOB



PRIORITIES

- Daily weight & abdominal girth
- I&O monitoring
- Low sodium diet
- Diuretics as prescribed
- Paracentesis (if needed)

ESOPHAGEAL VARCES

Chronic liver scarring (Cirrhosis)

- ↑ Resistance to portal circulation (Portal hypertension)
- Blood backs up in portal system
- Collateral veins enlarge
- **Esophageal/gastric varices form**
- Thin, fragile swollen veins (risk for rupture)
- Hematemesis / melena
- Hemorrhage → shock



Endoscopic view of esophageal varices

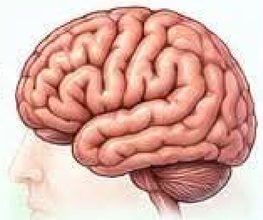
PRIORITIES

- Monitor for hematemesis/melena
- Avoid straining (no Valsalva)
- Emergency care for active bleeding (maintain airway, IV access, blood products)
- Medications as prescribed (e.g., non-selective beta blockers, PPIs)

HEPATIC ENCEPHALOPATHY

Chronic liver scarring (Cirrhosis)

- ↓ Liver detoxification
- Ammonia + toxins not cleared
- ↑ Ammonia in blood
- Toxins reach brain
- Altered neurotransmission / cerebral dysfunction
- **Confusion + lethargy + asterixis**
- Disorientation + ↓ LOC
- **Coma**



Effects of ammonia on the brain



Asterixis (flapping tremor)

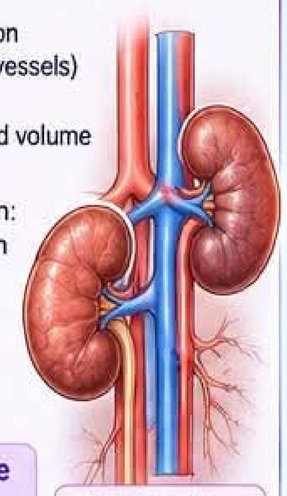
PRIORITIES

- DOC: Lactulose (titrate to 2–3 soft stools/day)
- Monitor mental status and LOC
- Monitor ammonia level
- Monitor bowel movements
- Avoid sedatives/constipating drugs
- Ensure safety measures (fall precautions)

HEPATORENAL SYNDROME (HRS)

Chronic liver scarring (Cirrhosis) + portal hypertension

- Splanchnic vasodilation (blood pools in abdominal vessels)
- ↓ Effective circulating blood volume
- RAAS + ADH activation: Renal vasoconstriction
- ↓ Kidney perfusion
- ↓ GFR + oliguria
- **↑ Creatinine / acute kidney injury**
- Hepatorenal syndrome



↓ Renal blood flow due to vasoconstriction

PRIORITIES

- Maintain hemodynamics (adequate perfusion, MAP)
- Monitor renal function (BUN, creatinine, I&O, urine output)
- Support BP and consider vasoconstrictors (as prescribed, e.g., albumin + vasoconstrictor)
- Prepare for dialysis (if indicated)
- Monitor for complications





Same Care. A Healthier Tomorrow. ♡

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Knowledge in Action. Compassion in Care. ♡
— SIR POL

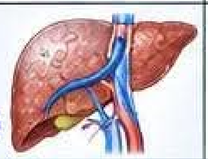


Right Assessment Right Care Brighter Outcomes.

CIRRHOSIS ⇨ TUBES AND DRAINS

Supportive Devices for Complications. Proper Care. Better Outcomes.

Compassionate Nurses. Healthier Communities Tomorrow.

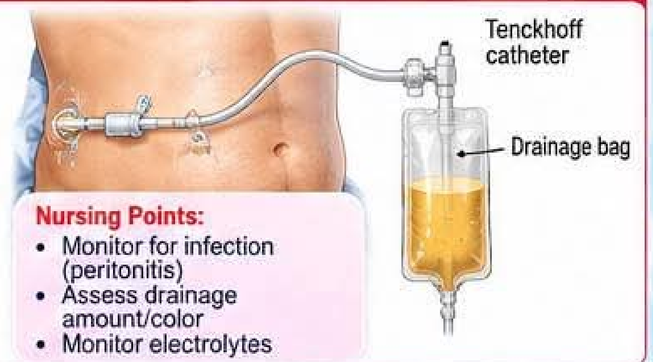
TUBE / DRAIN	PURPOSE	PRIORITIES / NURSING CARE
Paracentesis catheter / needle 	Removes ascitic fluid from abdomen.	• Check VS, BP. • Albumin replacement as ordered. • Monitor for leakage/bleeding.
Indwelling peritoneal drain (e.g., Tenckhoff) 	Repeated drainage of refractory ascites.	• Monitor for infection (peritonitis). • Assess drainage amount/ color. • Monitor electrolytes.
Sengstaken-Blakemore tube (Triple port) 	Temporary control of bleeding esophageal varices.	• Airway priority. • Keep emergency scissors at bedside. • Monitor for aspiration and respiratory distress.
Minnesota tube (Quadruple port) 	Similar to Blakemore; controls variceal bleeding.	• Airway protection. • Pressure monitoring. • Emergency deflation readily available (scissors).
NG tube (Salem-sump) 	Gastric decompression, removal of blood/contents.	• Avoid traumatic insertion if varices suspected. • Ensure air vent (blue pigtail) remains open.
Foley catheter 	Strict urine output monitoring, especially with renal risk/HRS.	• Monitor ↓ hourly urine output. • Indicate kidney hypoperfusion.
TIPS (Transjugular Intrahepatic Portosystemic Shunt) 	Reduces portal HTN by shunting portal blood to hepatic vein.	• Monitor for bleeding. • Assess for encephalopathy. • Monitor liver function.

PARACENTESIS



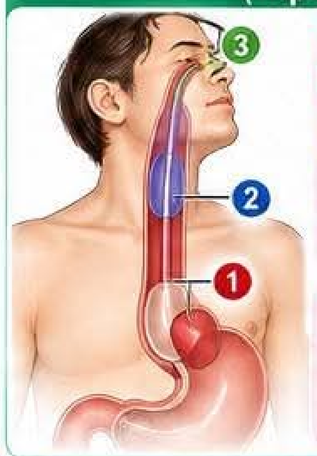
Nursing Points:
- Monitor VS, BP
- Albumin replacement
- Monitor for leakage, bleeding, infection

INDWELLING PERITONEAL DRAIN



Nursing Points:
- Monitor for infection (peritonitis)
- Assess drainage amount/color
- Monitor electrolytes

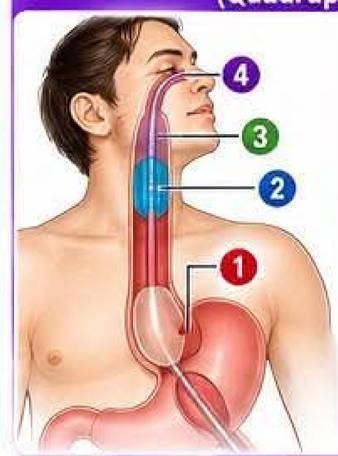
SENGSTAKEN-BLAKEMORE TUBE (Triple port)



Ports:
1. Gastric balloon (in stomach)
2. Gastric suction (remove blood/contents)
3. Esophageal balloon (control variceal bleeding)

Nursing Points:
- Airway priority
- Keep scissors at bedside
- Monitor for aspiration/ respiratory distress

MINNESOTA TUBE (Quadruple port)



Ports:
1. Gastric balloon
2. Gastric suction
3. Esophageal balloon
4. Esophageal suction (upper port)

Nursing Points:
- Airway protection
- Pressure monitoring
- Emergency deflation readily available (scissors)

NG TUBE (SALEM-SUMP)



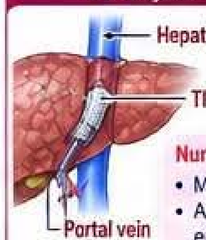
Nursing Points:
- Avoid traumatic insertion if varices suspected
- Ensure air vent remains open
- Continuous suction
- Monitor output and color

FOLEY CATHETER



Nursing Points:
- Monitor hourly urine output
- hypoperfusion
- Assess for AKI/HRS

TIPS (Transjugular Intrahepatic Portosystemic Shunt)



Nursing Points:
- Monitor for bleeding
- Assess for encephalopathy
- Monitor liver function





Same Care. A Healthier Tomorrow.

ASSESS PLAN IMPLEMENT EVALUATE

Knowledge in Action. Compassion in Care.
— SIR POL

Understand. Assess. Prioritize. Make a Difference. ♡



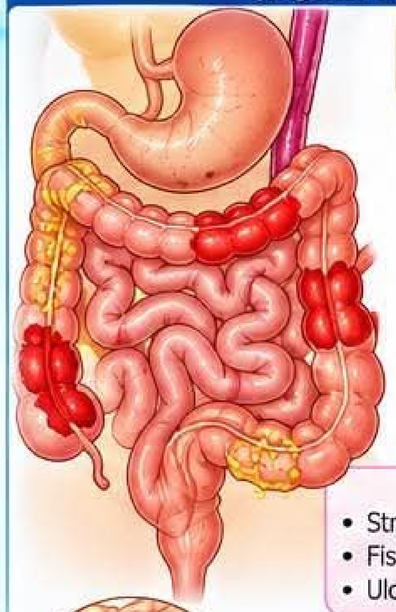
INFLAMMATORY BOWEL DISEASE (IBD)

Crohn's Disease vs Ulcerative Colitis

Different Patterns. Similar Challenges. Comprehensive Care. Better Outcomes.

Compassionate Nurses. Healthier Communities Tomorrow.

CROHN'S DISEASE
(Regional enteritis)



Affects anywhere mouth → anus
↓
Patchy "skip" lesions
↓
Transmural inflammation (all bowel layers)
↓
RLQ pain + diarrhea + weight loss
↓
Malabsorption
↓
Anemia, vitamin deficiency

Complications:
- Strictures → obstruction
- Fistulas → abscess/infection
- Ulcers → bleeding/perforation





Transmural inflammation (all bowel layers)

Crohn's Disease (Regional enteritis)	Feature	Ulcerative Colitis (UC)
Genetics - familial	Etiology	Autoimmune, Genetics - familial, Diet & stress
Anywhere mouth → anus; often terminal ileum	Location	Colon + rectum only
Skip lesions	Pattern	Continuous inflammation
Transmural = all bowel layers	Depth	Mucosal/submucosal only
Diarrhea, non-bloody or bloody	Stool	Bloody diarrhea
RLQ cramping common	Pain	LLQ cramping common
Hydration, nutrition, obstruction/fistula monitoring	Priority	Monitor bleeding, dehydration, toxic megacolon
Fistulas/abscess/sepsis; strictures/obstruction, perforation	Complications	Toxic megacolon, perforation, colorectal cancer risk
Fluids, nutrition support, ↓ residue diet during flare, corticosteroids/biologics; surgery for complications	Management	Fluids, monitor bleeding, corticosteroids/biologics as ordered, surgery for complications

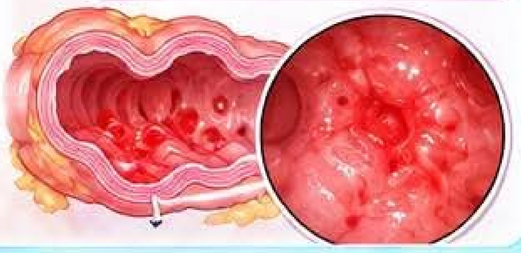
ULCERATIVE COLITIS (UC)



Rectum → colon only
↓
Continuous inflammation
↓
Mucosal/submucosal ulceration
↓
Bloody diarrhea + LLQ pain + urgency
↓
Fluid/electrolyte loss → dehydration; anemia, fatigue
↓
Severe inflammation

Complications:
- Toxic megacolon → perforation → peritonitis/sepsis
- Long-term risk: colorectal cancer

Mucosal/ submucosal inflammation



CLINICAL MANIFESTATIONS

CROHN'S DISEASE


RLQ pain


Diarrhea (non-bloody or bloody)


Weight loss


Fatigue

ULCERATIVE COLITIS (UC)


LLQ pain


Bloody diarrhea


Urgency


Fatigue


Malabsorption/ maluntrition



Same Patients. Different Paths. Care. ♥

Knowledge in Action. Compassion in Care.
— SIR POL

DIAGNOSTIC TESTS


Colonoscopy (with biopsy)


CT scan / MRI enterography (Crohn's)


Stool studies (rule out infection)

NURSING INTERVENTIONS


Fluid & electrolytes


Nutrition support


Administer medications (as ordered)


Patient education & support



ASSESS → PLAN → IMPLEMENT → EVALUATE

Healthier Guts. Brighter Tomorrows. ♡



Know
Assess
Intervene
Make a Difference.

INFLAMMATORY BOWEL DISEASE (IBD)
OSTOMIES

Different Locations. Different Stool Patterns. Focused Nursing Care. Better Outcomes.

Compassionate Nurses. Healthier Communities Tomorrow.

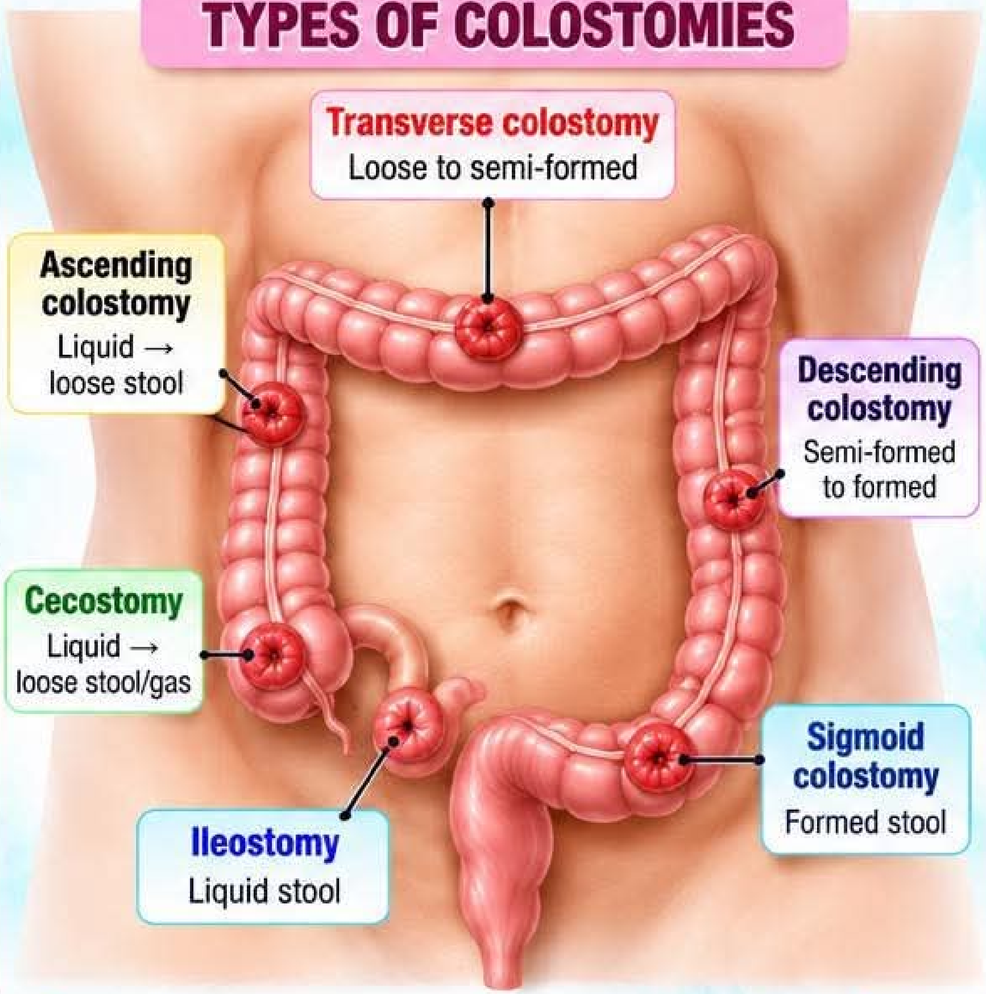
KEY POINTS

- The **lower** the ostomy → the **more formed** the stool.
- Ileostomy = **LIQUID** → **highest risk for dehydration**.
- Colostomy (sigmoid) = **most normal** stool pattern.
- Only sigmoid colostomy → can be **irrigated**.
- Stoma should be **pink, moist, beefy red**.

PRIORITY NURSING CARE

- **Assess stoma** (Normal: pink/red, moist; Abnormal: pale, blue, black = ischemia → notify provider).
- **Protect skin:** Use skin barrier; prevent breakdown from stool.
- **Monitor output** (Ileostomy → watch fluids & electrolytes).
- **Pouch care:** Empty when 1/3 to 1/2 full.

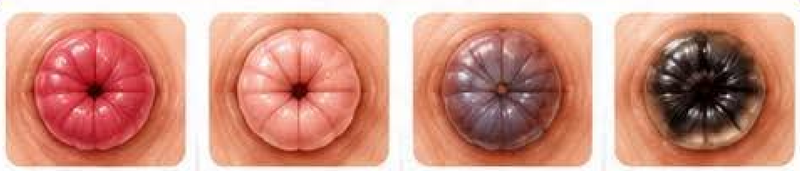
TYPES OF COLOSTOMIES



STOMA OUTPUT & CHARACTERISTICS

Ileostomy		**Liquid stool** High risk for dehydration Monitor fluids & electrolytes
Cecostomy		**Liquid to loose stool/gas** Monitor fluids, electrolytes and skin care
Ascending colostomy		Liquid to loose stool Monitor fluid balance and skin care
Transverse colostomy		Loose to semi-formed stool Monitor output and skin care
Descending colostomy		Semi-formed to formed stool Monitor output and skin care
Sigmoid colostomy		Formed stool Most normal stool pattern Can be irrigated

STOMA APPEARANCE



Normal — Pink/red, moist, beefy red

Pale — Possible poor perfusion

Blue/purple — Compromised circulation

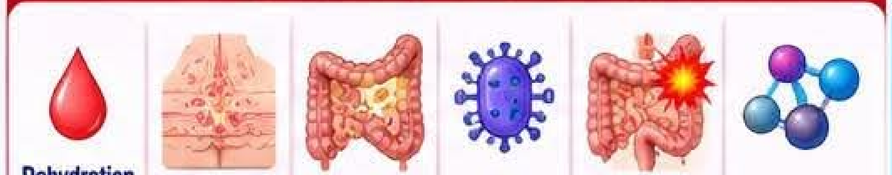
Black — Necrosis (emergency)

POUCH CARE TIPS



Empty when 1/3 to 1/2 full → Clean skin with mild soap and water → Use a skin barrier → Apply new pouch properly

POTENTIAL COMPLICATIONS



Dehydration (especially (Ileostomy)

Skin irritation and breakdown

Obstruction

Infection/ abscess

Perforation / peritonitis

Electrolyte imbalance



Know
Assess
Intervene
Make a Difference. ♡

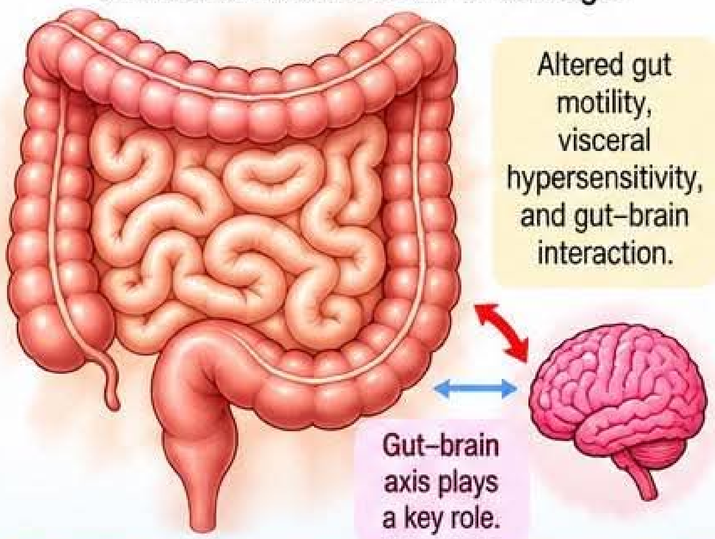
IRRITABLE BOWEL SYNDROME (IBS)

A Functional Bowel Disorder. Real Symptoms. Better Management. Brighter Days.

Compassionate Nurses. Healthier Communities Tomorrow.

WHAT IS IBS?

Functional bowel disorder → no structural inflammation or damage.



Altered gut motility, visceral hypersensitivity, and gut–brain interaction.

Gut–brain axis plays a key role.

Category	Key Points
Definition	Functional bowel disorder → no structural inflammation/damage
Types	IBS-D = diarrhea; IBS-C = constipation; IBS-M = mixed
Triggers	Stress, caffeine, fatty foods, dairy, gas-forming foods, artificial sweeteners
Key symptoms	Chronic abdominal pain/cramping, bloating, gas, diarrhea and/or constipation, mucus in stool
Pain pattern	Often improves after bowel movement
Priority	Rule out red flags: bleeding, fever, weight loss, anemia, nocturnal symptoms
Management	Diet changes, stress reduction, exercise, fluids, fiber, medications based on symptoms

TYPES OF IBS

IBS-D (Diarrhea predominant)



- Frequent loose stools
- Urgency
- Bloating, cramping
- Highest risk for dehydration

IBS-C (Constipation predominant)



- Infrequent, hard stools
- Straining
- Bloating, cramping
- May feel incomplete evacuation

IBS-M (Mixed)



- Alternating diarrhea and constipation

COMMON SYMPTOMS



Abdominal pain/cramping (often relieved by bowel movement)



Bloating



Gas



Diarrhea and/or constipation



Mucus in stool

COMMON TRIGGERS



Stress



Caffeine



Fatty foods



Dairy



Gas-forming foods



Artificial sweeteners

MEDICATIONS (BASED ON SYMPTOMS)

IBS-D (Diarrhea)	Loperamide, diphenoxylate-atropine
IBS-C (Constipation)	Psyllium, polyethylene glycol, docusate
Cramping/Spasm	Dicyclomine, hyoscyamine
Stress/Anxiety-related	Low-dose TCAs or SSRIs (antidepressants)

NURSING MANAGEMENT

Diet & Lifestyle Modifications



- High-fiber diet
- Avoid trigger foods
- Adequate fluids
- Regular exercise

Stress Reduction



- Relaxation techniques
- Mindfulness/CBT
- Adequate sleep

Symptom Control



- Medications as prescribed
- Monitor effectiveness and side effects

Patient Education



- Explain chronic nature
- Identify and avoid triggers
- Keep symptom/food diary
- When to seek medical care

RED FLAGS (NOT IBS)

- Blood in stool
- Unintentional weight loss
- Fever
- Nocturnal diarrhea
- Anemia
- Severe or worsening pain

Require further evaluation (Higher risk for IBD, infection, or serious GI disease).



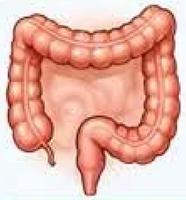
Know
Assess
Intervene
Make a Difference. ♡

DIVERTICULAR DISEASE

From Small Pouches to Big Problems. Early Recognition Saves Lives.

Compassionate Nurses. Healthier Communities Tomorrow.

WHAT IS DIVERTICULAR DISEASE?



Formation of pouch-like sacs (diverticula) in the colon wall. When these diverticula become inflamed or infected, the condition is called **diverticulitis**.

DIVERTICULOSIS
(Usually asymptomatic)

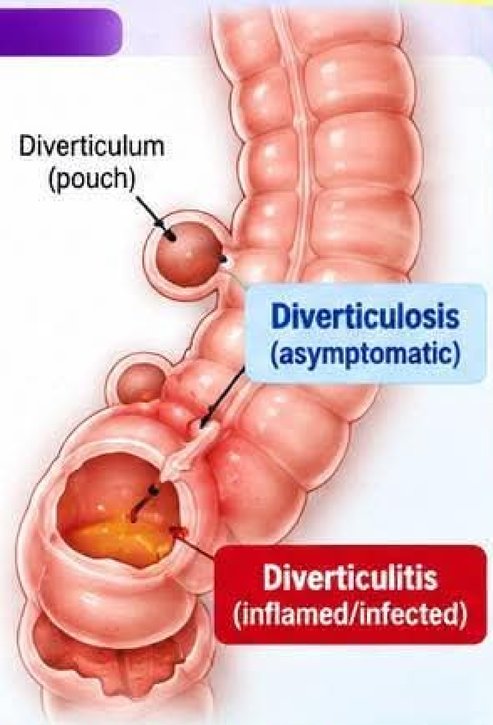
- Pouches in colon wall (diverticula)
- Caused by increased colonic pressure (chronic constipation, low fiber diet, fatty and red meat intake)

DIVERTICULITIS
(Inflamed/Infected)

- Stool or bacteria trapped in the pouch
- Inflammation and infection
- Can lead to complications (abscess, perforation, peritonitis, sepsis)

PATHOPHYSIOLOGY

Weak spots in colon wall (muscular layer)
↓
Pouches form (diverticula)
↓
Stool/bacteria trapped (fecalith)
↓
Inflammation/infection
↓
Diverticulitis (flare)
↓
LLQ pain + fever + ↑ WBC
↓
Abscess / perforation
↓
Peritonitis ⇒ sepsis



COLON LOCATION



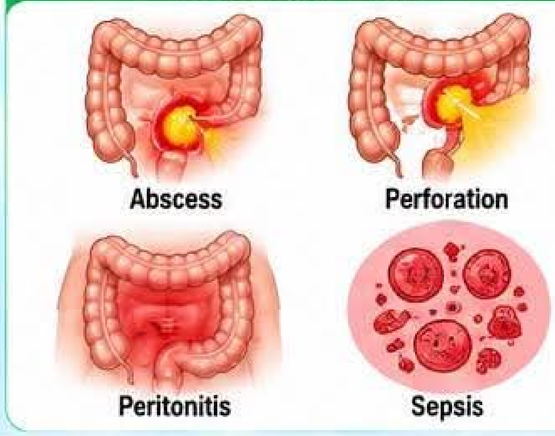
DIVERTICULOSIS vs DIVERTICULITIS

Category	Diverticulosis	Diverticulitis (Flare)
Definition	Pouches in colon wall	Inflammation/infection of pouches
Location	Most common in sigmoid colon (LLQ)	Most common in sigmoid colon (LLQ)
Symptoms	Usually asymptomatic	LLQ pain, fever, nausea, diarrhea, ↑ WBC
Causes	↑ colonic pressure (constipation, low fiber, fatty/red meat)	Stool/bacteria trapped, leading to inflammation
Complications	Usually none	Abscess, perforation, peritonitis, sepsis
Management	High-fiber diet	Clear-fiquids/NPO (if severe), IV fluids, antibioitics, pain control

KEY SIGNS & SYMPTOMS



COMPLICATIONS



DIET RECOMMENDATIONS

Diverticulosis (Prevention)



High-fiber diet to prevent constipation

Diverticulitis (Flare)



Low fiber / clear liquids (during flare)

MANAGEMENT (DIVERTICULITIS)



NURSING PRIORITIES

- Assess for worsening pain, fever, or peritoneal signs
- Monitor VS and labs (WBC)
- Manage pain and administer antibiotics as ordered
- Maintain NPO/clear liquids if severe
- Monitor for complications (abscess, perforation, sepsis)
- Patient education: high-fiber diet, avoid constipation