GI Functions	Disorder	Key Assessment Data	Diagnosis & Treatment	Nursing Priorities	Complications
Digestion	**Peptic Ulcers**	Gastric: -Epigastric discomfort 1 to 2 hours after meal; burning or gaseous pain; food may worsen -Perforation is first symptom in some patients Duodenal: -Occur, disappear, recur -Burning or cramplike pain in midepigastric or back; 2 to 5 hours after meal Both: Bloating, nausea, vomiting, early feeling of fullness	Diagnosis -Endoscopy -R/O H Pylori infection -CBC, liver enzyme studies, serum amylase, and stool examination -- often looking for signs of bleeding Treatment -Reduce acid secretion - PPIs, abx for H Pylori -Sulcralfate: given 1 hr before or after antacid to protect esophagus, stomach, and duodenum -Surgical management uncommon	-Teach about diet/lifestyle changes: avoid foods that cause distress or irritation; avoid caffeine and alcohol -Stop NSAIDs -Treat pain - what would we use? Think about what's causing the pain (NPO, IVF, NG to intermittent suction - decreases acid) -What would we worry about if someone is on NG suction? -Electrolyte imbalance -Emotional rest - decrease stress -Monitor for s/s of bleeding, increased pain, s/s perforation (below), gastric outlet obstruction (N/V, absent bowel sounds)	Perforation: -GI contents spill into peritoneal cavity

	Gallbladder disease	Cholelithiasis: -Asymptomatic if the stones stay in the gallbladder -Pain more severe when stones moving or obstructing -RUQ pain that occurs 3 to 6 hours after high-fat meal or when patient lies down, lasts for minutes to hours -Pain occurs from temporary obstruction Cholecystitis: -Pain is steady (> 6hrs), excruciating -Pain can be in RUQ and referred to R shoulder -Accompanied by signs of inflammation (fever, leukocytosis, N/V, tachycardia, diaphoresis	Diagnosis -Ultrasound -ERCP for direct visualization of the gallbladder -Percutaneous transhepatic cholangiography - inject contrast to visualize obstruction -Labs: CBC, serum enzymes (think liver enzymes), urine studies - look @ bilirubin Treatment -Drugs are possible for conservative management - ursodiol and chenodiol dissolve the stones -Laparoscopic cholecystectomy for symptomatic gallstones -Splinting of the bile duct can be done during ERCP -Anticholinergics can decrease GI secretions and counteract smooth muscle spasms	-Promote comfort, prevent recurrence -Pain control - opioids -NPO status & IVF -Low-fat diet -Antiemetics -Antibiotic administration -Gastric decompression with NG tube -Lifestyle: gradual weight loss, smaller more frequent meals to promote gallbladder emptying -Amount of fat in diet will be determined by how patient tolerates fat	-Biliary obstruction: dark amber urine d/t excretion of bilirubin in the urine (can't get to small intestine to be broken down to urobilirubin); jaundice, clay-colored stools -Decreased absorption of vitamin K & decreased production of prothrombin in the liver - bleeding -Pancreatitis -Abscess formation

Absorption	**Gastric surgery**	Types: -Partial gastrectomy -Gastroduodenostomy -Gastrojejunostomy -Vagotomy	X	-Monitor Is & Os, electrolyte balance -Daily weights -Prevent respiratory complications postop - teaching about incision splinting, cough/deep breathing -Pain management -N/V management -Prevent infection -NG tube for decompression immediately post-op -- reduces pressure to suture line, decreases inflammation; bloody drainage is expected for 2-3 but no more than 75 mL/hr; output darkens to yellow-green in 36-48 hours -Consult dietician -Multivitamin administration for wound healing and anemia prevention, iron -Nutrition: soft bland diet initially, small & frequent meals, avoid simple sugars, lactose & fried foods, limit sugar to avoid hypoglycemia -Increase protein & fat intake	-Dumping syndrome -Postprandial hypoglycemia -Bile reflux gastritis -Pulmonary complications, like after any abdominal surgery -Anastomosis leak -- tachycardia, dyspnea, fever, abdominal pain (can cause sepsis) -Bleeding
Elimination	**Hernias**	-Painful - increases with activities that increase intraabdominal pressure -May be externally visible	Diagnosis -History -Physical exam -Imaging: US, CT, MRI Treatment -Reduce intraabdominal pressure - weight loss, repositioning	-Is & Os -Encourage coughing & deep breathing - splinting surgical site -Should cough/sneeze with open mouth to reduce intraabdominal pressure -Avoid heavy lifting (10+ lbs) for 6-8 weeks	-Strangulated bowel: blood supply is compromised; very painful, vomiting, cramping, distention -Requires emergency surgery & temporary colostomy -Bowel obstruction, gangrene, and necrosis

			-Surgical treatments: close the defect and prevent re-herniation -Can use wire, fascia, or mesh to reinforce weakened area of tissue		
	Diverticulosis	-Usually asymptomatic -If symptomatic: abdominal pain, bloating, flatulence, changes in bowel habits -May see bleeding	Diagnosis -History -Found during routine colonoscopy Treatment: -Diet & lifestyle modifications	-Encourage a high-fiber diet - encourage fruits & vegetables -Supplement fiber -Avoid red meats and fatty foods -Goal fluid intake of 2L/day -Weight loss if overweight - helps avoid exacerbations due to increased intraabdominal pressure -Stop smoking	Diverticulitis
	Ostomy	-Stoma assessment: pink-red, mild swelling, small amount of blood d/t vascularity of GI tract Ileostomy: -Output is liquid or thin paste - didn't enter the colon; elimination is involuntary and drains frequently Colostomy: -Output resembles a normal formed stool; possible for patients to regulate emptying time	X	-Pre-op: help with stoma site selection (flat surface, allow for patient visibility and allow them to hide under clothing) -Wound care nurse consultation for education - when? PRE-OP -Post-op care: assess incision for s/s infection; REEDA -Frequent dressing changes in the first few hours due to profuse drainage -Record volume, color, and consistency of output -Ileostomies: have minimal output first 24-48 hours d/t decreased gut motility after surgery -Teach about fluid intake - 2-3L/day for ileostomies	-Stoma: dusky/cyanotic = inadequate blood supply; brown/black = necrosis -Severe edema = obstruction -Moderate-severe bleeding = lower GI bleed or coag deficiency -Bowel obstruction
Inflammation/	IBS	Crohn's disease -Mouth to anus	Diagnosis -History	-Consult dietician - correct/prevent	Crohn's: --Strictures - obstruction -Abscesses

	Crohn's disease + Ulcerative Colitis	-Affects entire thickness of bowel -Skip lesions -Cobblestoning of mucosa -Pain: cramping -Diarrhea -Malabsorption -+/- rectal bleeding -Severe weight loss -↑risk of small intestine & CRC Ulcerative colitis -Only affects colon mucosa -Starts in rectum and moves upwards – continuous inflammation -Pain: severe, constant -Diarrhea, +bloody -Urge to defecate even when bowel is empty	-Labs: CBC, electrolytes, albumin, ESR, CRP, WBCs -Stool studies: look for blood, pus, mucus, infection -Need to rule out other diseases/acute processes -Imaging: barium enema, small bowel series, ultrasound, CT, MRI, colonoscopy, endoscopy for Crohn's Treatment -Rest the bowel -Control inflammation -Correct malnutrition -Relieve symptoms -Improve quality of life Drug therapy UC: corticosteroids + aminosalicylates or biologics Crohn's: biologics + corticosteroids May be some crossover in meds - some are used for both -Aminosalicylates: suppress inflammatory cytokine production; oral or rectal admin -Antimicrobials -Corticosteroids: prevent/decrease inflammation of intestinal mucosa; goal is to give for the shortest period of time that's effective; given PO, IV, or as a suppository -Immunomodulators: maintain remission after corticosteroids; risk for	malnutrition and correct/prevent F+E losses -Supplements - folic acid, calcium, potassium -Exacerbations: liquid diet high in calories and nutrients, lactose-free, easily absorbed -High fat foods trigger diarrhea -Food diary -Pain control - -Accurate Is & Os -Daily weights -Post-op care -Education: disease management, stress reduction, perianal care, diet management	-Fistulas Ulcerative colitis -Toxic megacolon – risk of perforation -Iron deficiency anemia Both -Colorectal cancer (greater in UC) -C diff infections -Perforation (inflammation, megacolon)

			infection & bleeding d/t bone marrow suppression -Biologics: reduce inflammation by blocking specific proteins; generally given IV or subQ to induce & maintain remission (caution with opportunistic infections) Surgery: -Crohn's: done for complications like obstructions or resection of diseased portions of the intestine OR for widening of narrowed portions -UC: done after complications or poor response to treatment; colectomy with anal anastomosis OR ostomy formation is curative		
	Diverticulitis	-Acute pain in LLQ -Distention -Hypoactive/absent bowel sounds -N/V -Systemic infection s/s	Diagnosis -History -Testing stool for occult blood -Labs: CBC, urinalysis -Imaging: CT w/contrast is preferred; KUB, MRI, ultrasound Treatment Surgery -Affected colon is removed & anastomosed, may need temporary colostomy that can later be taken down	-NPO - clears with improving symptoms -IVF + electrolyte replacement as ordered, especially while NPO -Monitor WBCs -Medications: pain management, antibiotics -Bedrest -Strict Is & Os -Frequent oral cares -NG suction	-Abscesses -Bleeding -Peritonitis
	Appendicitis	-Dull periumbilical pain that is persistent and continuous -Eventually moves to RLQ - McBurney's point -Anorexia, N/V, low-grade fever	Diagnosis -History -WBC - high -UA - rule out other conditions	-Prevent FVD, relieve pain, prevent complications -Maintain NPO status -Frequent VS and focused assessment	-Rupture - IV abx -Peritonitis

		-Rigidity, rebound tenderness, guarding -"Kick the bed" -Flexing of the right leg helps with pain -Be worried if pain suddenly gets better - rupture	-CT is preference, though ultrasound is common Treatment -Immediate appendectomy -Antibiotics & fluid resuscitation pre-op	-Medications: IVF (what kind? - isotonic), analgesics, antiemetics -Allow position of comfort -Post-op: promote ambulation, advance diet as tolerated	