# GI bleeding and liver disease

**Reflux, ulcers, bleeding and dumping; hepatitis, cirrhosis and its complications**

ON THIS SHEET 1 At a glance 2 Priority and safety calls 3 Exam anchors 4 Self-quiz 5 Sources ★ high yield



## 1 AT A GLANCE

Upper GI problems range from nagging heartburn to a bleed that can send a client into shock. The liver filters toxins, makes clotting factors and proteins, and stores energy.

### Reflux and hiatal hernia

- The valve at the bottom of the esophagus relaxes and acid flows up. A hiatal hernia (stomach bulging up through the diaphragm) is a leading cause.
- Heartburn after meals or lying down; regurgitation, trouble swallowing. Some have chest pain, a chronic cough or hoarseness.
- ★ **Chest pain can mimic a heart attack**, especially in women: assess it fully.
- ★ Teach: **nothing for 3 hours before bed**, head of the bed raised, upright after meals, small frequent meals.
- Proton pump inhibitors (pantoprazole) are standard; famotidine is another option. Long-term, they can lower magnesium and B12.
- Trouble swallowing, anemia, vomiting blood or weight loss: a scope exam.

### GI bleeding

- Upper: ulcers, gastritis, inflamed esophagus, varices, tears from severe vomiting. Lower: diverticular disease, hemorrhoids, polyps, cancer, colitis.
- ★ **Bright red or coffee-ground vomit; black, tarry stools** or red blood in the stool.
- ★ Severe bleeding causes **shock**: confusion, a fast pulse, pale, cold skin, sweating. Slow, hidden bleeding causes anemia.
- Act fast: get help, monitor vital signs, follow the hemoglobin; expect a scope to stop the bleeding.
- Known varices: check with the provider before an NG tube goes in. Transfusions need consent, unless it's an emergency.

### Hepatitis

| Virus | Spread | Course |
|---|---|---|
| ★ A | Fecal-oral | Usually acute. Vaccine |
| ★ B | Blood, body fluids, sex, birth | Can become chronic. Vaccine (newborns, health care workers) |
| C | Blood, like shared needles | Can become chronic. Antivirals cure most in 8 to 12 weeks |
| D, E | D needs B; E: contaminated water | E usually clears |

**Chronic:** Lasting over 6 months. Chronic B and C can lead to cirrhosis and liver cancer.

### Peptic ulcers

- ★ Most come from **H. pylori** or **anti-inflammatory drugs** like aspirin and ibuprofen; blood thinners add risk.
- ★ **Gastric ulcer: pain soon after eating. Duodenal: 2 to 3 hours after**, and it can wake the client at night.
- Tests: a scope (the gold standard); a breath, stool or blood test for H. pylori.
- Acid reducers heal it; for H. pylori, a proton pump inhibitor is paired with antibiotics. Anti-inflammatories are stopped or reduced; avoid smoking, alcohol and caffeine, even decaf coffee.
- Sucralfate: empty stomach, an hour before or two hours after meals.
- Dangers: bleeding and perforation. **A sudden change in pain** can mean perforation.

### Reflux or dumping: opposite habits

| | Reflux | Dumping |
|---|---|---|
| **After meals** | Stay upright | **Lie down 30 minutes** |
| **Meals** | Small, frequent | About six small |
| **Fluids** | Usual | At least 30 minutes after meals |
| **Food** | Avoid triggers | Protein, fiber, fat; avoid sugar, milk |

**Dumping syndrome:** Food moving too fast into the small intestine, after stomach surgery. Early (within 30 minutes): cramping, diarrhea, sweating. Late (1 to 3 hours): low blood glucose.

### Hepatitis: signs and care

- Early: poor appetite, nausea, vomiting, fatigue. Later: jaundice, right upper belly pain, dark urine, light stools.
- ★ **Clotting tests rise, so bleeding risk rises**: electric razor, soft toothbrush; check gums, urine, stool and IV sites.
- Drugs that harm the liver, like acetaminophen, are avoided. Hepatitis A and most acute B get supportive care. Hepatitis C gets curative antivirals, and chronic B gets antivirals when needed.
- Itching: cool showers or baking soda baths, short nails, no alkaline soaps.

### Cirrhosis

- Scarring from long-term liver damage (alcohol, fatty liver disease, chronic hepatitis B or C) raises portal vein pressure, pushing blood into fragile veins that can burst. Treating the cause can let it regress, but cancer risk remains.
- Signs: fatigue, itching, poor appetite; later easy bruising, swelling, jaundice, confusion; spider angiomas, red palms. Labs: high liver enzymes and clotting times, low albumin, low platelets.
- ★ **No alcohol. Check with the provider before any medicine.** Avoid anti-inflammatory drugs; acetaminophen only in reduced doses.
- Avoid long fasts: small meals every 3 to 4 hours and a bedtime snack, enough calories and protein; no raw shellfish or unpasteurized milk.
- Vaccinate against hepatitis A and B, flu and pneumonia; screen for liver cancer about every six months.

**Educational use only.** Not a substitute for clinical judgment, your facility's policy or the provider's orders. Where practice varies, follow facility policy and state law. No patient information.

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## 1 AT A GLANCE, CONTINUED

### Complications of cirrhosis

| | What happens | What the nurse does |
|---|---|---|
| ★ **Encephalopathy** | Ammonia and other toxins reach the brain. Early: sleep changes, forgetfulness, worse handwriting; musty or sweet breath. Later: **asterixis** (flapping tremor), disorientation, slurred speech, coma | Treat triggers: GI bleeding, infection, kidney failure, sodium or potassium changes. **Lactulose** lowers gut ammonia (can cause diarrhea); rifaximin or neomycin. **Avoid sedatives** |
| ★ **Varices** | Swollen veins from portal hypertension, silent until they bleed. Bleeding: vomited blood, black or bloody stools, paleness, a fast pulse, low pressure | **Acute bleeding: resuscitation, IV octreotide or vasopressin, banding, preventive antibiotics**; protect the airway. Prevention: nonselective beta blockers, like propranolol |
| **Ascites** | Fluid in the belly: bloating, pain, breathlessness | Abdominal girth and daily weight. Sodium about 2 g a day, individualized; diuretics as ordered. Paracentesis drains and tests the fluid |
| **Infection, kidneys** | Spontaneous bacterial peritonitis: ascites infection without a surgically treatable source. Hepatorenal syndrome: kidney failure | Watch for infection: SBP is life-threatening. Paracentesis tests the fluid for infection |

## 2 PRIORITY AND SAFETY CALLS

★ Coffee-ground vomit with a fast pulse and low pressure is a bleed with early shock: **report it now**.

★ Cirrhosis with known varices, vomiting bright red blood: **call for help now, protect the airway and watch for shock**. Don't push an NG tube blindly.

★ Newly confused and drowsy, with asterixis, and a sedative ordered: **hold the sedative, report the change, expect lactulose**. Cutting all protein isn't the answer.

Sudden severe pain in a client with an ulcer: possible perforation. Assess and report at once.

New chest pain in a client with reflux: assess it fully, as possible cardiac pain.

After a GI bleed, review every medicine: anti-inflammatories and blood thinners raise the risk.

Traps: ibuprofen for ulcer pain; anti-inflammatories for cirrhosis pain; sweet drinks with meals after gastric surgery; sitting a dumping client upright.

## 4 SELF-QUIZ

1. A _____ ulcer hurts 2 to 3 hours after eating and can wake the client.
2. Sucralfate is given on an _____ stomach.
3. Early dumping comes within _____ minutes of a meal.
4. Hepatitis A spreads by the _____ route.
5. Lactulose lowers the _____ made in the gut.
6. A flapping tremor of the hands is called _____.
7. For ascites, measure abdominal _____ and weigh daily.

**ANSWER KEY** 1. duodenal · 2. empty · 3. 30 · 4. fecal-oral · 5. ammonia · 6. asterixis · 7. girth

## 3 EXAM ANCHORS

1. Reflux: upright after meals, nothing 3 hours before bed, and acid reducers.
2. Ulcers: H. pylori or NSAIDs; gastric pain soon after eating, duodenal later.
3. Bleeding: coffee-ground vomit or black stools; watch for shock and act fast.
4. Dumping: small meals, liquids between meals, lie down after, and less sugar.
5. Hepatitis A is fecal-oral; B and C are bloodborne and can turn chronic.
6. Encephalopathy: asterixis and confusion; lactulose, and no sedatives.
7. Varices: bleeding is an emergency. Ascites: girth, weight, and low sodium.

## 5 SOURCES

1. Open RN, Nursing: Health Alterations, 11.9 Gastroesophageal Reflux Disease. wtcs.pressbooks.pub/healthalts/chapter/11-9-gastroesoph…
2. Open RN, Nursing: Health Alterations, 11.10 Peptic Ulcer Disease. wtcs.pressbooks.pub/healthalts/chapter/11-10-peptic-ulc…
3. NIDDK, Symptoms and Causes of GI Bleeding. niddk.nih.gov/health-information/digestive-diseas…
4. NIDDK, Symptoms and Causes of Dumping Syndrome. niddk.nih.gov/health-information/digestive-diseas…
5. Open RN, Nursing: Health Alterations, 11.15 Hepatitis. wtcs.pressbooks.pub/healthalts/chapter/11-15-hepatitis
6. NIDDK, Treatment for Cirrhosis. niddk.nih.gov/health-information/liver-disease/ci…
7. MedlinePlus, Loss of brain function: liver disease (hepatic encephalopathy). medlineplus.gov/ency/article/000302.htm
8. MedlinePlus, Bleeding esophageal varices. medlineplus.gov/ency/article/000268.htm
9. MedlinePlus, Ascites. medlineplus.gov/ency/article/000286.htm

**Built from RN PocketPal course lessons:** Upper GI disorders and GI bleeding (c13-l01); Liver disorders (c13-l03). Every line on this sheet comes from those lesson scripts.

GASTROINTESTINAL

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