GI Bleed

A plain-English guide for you and your family

WHAT IS HAPPENING

Your digestive tract—from your throat down to your bottom—is a long tube lined with soft tissue and fed by thousands of tiny blood vessels. Normally, that lining stays smooth and sealed, and the vessels stay closed. But when something breaks that seal—an ulcer (a raw sore in the stomach wall), a burst vein (varices, swollen veins that pop under pressure), a tear from hard vomiting (Mallory-Weiss tear), a bleeding pouch in the colon wall (diverticulosis), fragile twisted vessels that leak (angiodysplasia), inflamed gut tissue (inflammatory bowel disease like Crohn's or ulcerative colitis), a tumor that eats through a vessel, or swollen veins around the rectum (hemorrhoids)—blood spills into the tube or out of your body. You might throw up red blood or dark coffee-ground material (hematemesis), pass jet-black tarry stool that smells like road tar (melena), or see bright or dark red blood in the toilet (hematochezia). Your heart speeds up (tachycardia) and your blood pressure drops (hypotension) because there's not enough liquid left in your pipes to fill every beat. Your body clamps down vessels to keep blood flowing to your brain and heart—it's trying to buy time. But if the leak keeps going and no one plugs it, you slide toward shock and can die. The job is to find the source fast (with scopes, scans, or exams), give back the lost volume through an IV, and stop the bleeding—with medicine, a clip through a scope, or surgery if needed.

What you might feel

- Black, tarry stools (melena)
- Bright red blood in stool or vomit (hematochezia or vomiting blood (hematemesis))
- Feeling dizzy or lightheaded, especially when standing up
- Fast heart rate (tachycardia)
- Low blood pressure (hypotension)
- Pale skin and pale inner eyelids
- Feeling weak or very tired
- Belly pain or cramping
- Confusion or trouble staying awake

Call the doctor right away if...

- Vomiting bright red blood or dark coffee-ground material
- Large amounts of bright red blood in the stool
- Feeling faint, confused, or passing out
- Heart racing over 100 beats per minute at rest or blood pressure dropping below 90 systolic
- Pale, cold, clammy skin with sweating

What the care team will do

- Establish two large-bore IV lines (18-gauge or larger) and start crystalloid fluid bolus at wide-open rate.
- Measure heart rate, blood pressure, and orthostatic vital signs every 15 minutes until stable.
- Draw blood for type and crossmatch, complete blood count, INR, PT, metabolic panel, and lactate before giving any products.
- Keep patient NPO (nothing by mouth) and prepare for urgent endoscopy within 24 hours.
- Start IV proton pump inhibitor bolus then continuous infusion if upper GI bleed suspected.
- Transfuse packed red blood cells to keep hemoglobin at or above 7 g/dL, or 9 g/dL if patient has coronary artery disease.
- Look for signs of liver disease including yellowing of the skin and eyes (jaundice), fluid buildup in the belly (ascites), spider angiomas, and altered mental status; notify provider immediately if present.
- Place patient on continuous pulse oximetry and cardiac monitor; keep bed flat or in Trendelenburg if with low blood pressure (hypotensive).

Medicines you may be given — and why

Crystalloid fluids (normal saline or lactated Ringer's solution)

These are salt-water solutions pumped through two large IV lines straight into your veins. They quickly refill the tank of liquid in your blood vessels so your blood pressure doesn't drop to dangerous levels and your organs stay fed with oxygen. Think of it like topping off a car's radiator before the engine overheats—the fluid keeps everything running while doctors fix the leak.

Packed red blood cells (pRBCs)

These are bags of donated red blood cells—the oxygen-carrying trucks of your blood. When you lose a lot of blood from a GI bleed, your hemoglobin (the oxygen-holding protein inside red cells) drops. Transfusing pRBCs brings your hemoglobin back up to around 7 grams per deciliter, which is enough to keep your organs fed with oxygen without overloading your system. The target is 7 (not higher) because studies show lower targets are safer in most GI bleeds—they reduce the risk of rebleeding and keep clotting balance better.

Proton pump inhibitor (PPI) – intravenous (e.g. pantoprazole, esomeprazole)

In the lining of your stomach, tiny pumps called proton pumps churn out acid every day to help digest food. When an ulcer (a raw crater in the stomach or duodenum) bleeds, acid eats away at the clot trying to form and keeps the wound open. A PPI shuts down these acid pumps almost completely. Given first as a quick IV bolus (a push shot) and then as a continuous drip, it raises the stomach's pH above 6—turning the stomach from a harsh acid bath into a gentler environment where clots can stick and the ulcer can start to heal. This is used for upper GI bleeds (stomach, duodenum, esophagus) but NOT for lower GI bleeds (colon), where acid isn't the problem.

Octreotide

Octreotide is a lab-made copy of somatostatin, a natural hormone your body uses to slow things down in the gut. In people with cirrhosis (scarred liver), blood backs up and pushes into veins in the esophagus and stomach, swelling them into fragile balloons called varices. These can burst and bleed massively. Octreotide tightens (constricts) the splanchnic arteries—the blood vessels feeding your gut—which drops the pressure in the portal vein (the highway carrying blood from the gut to the liver). Lower pressure means less force pushing on the varices, so bleeding slows or stops. It's given as an IV bolus and then a continuous drip, and it's used ONLY for variceal bleeds, not ulcers or other causes.

Ceftriaxone

When you have cirrhosis and a variceal bleed, bacteria living in your gut can sneak across the intestinal wall into your bloodstream—a problem called spontaneous bacterial peritonitis (SBP) or bacteremia (bacteria in the blood). This happens because the bleeding weakens your defenses and cirrhosis already leaves your immune system shaky. Ceftriaxone is a strong antibiotic that kills common gut bacteria (especially E. coli and Klebsiella) by punching holes in their cell walls. Studies show giving it early cuts the risk of infection in half and lowers the chance of rebleeding and death. It's given as a single daily IV dose for up to 7 days.

Reversal agents for anticoagulants (e.g. vitamin K, prothrombin complex concentrate, idarucizumab, andexanet alfa)

Many people take blood thinners (anticoagulants like warfarin, apixaban, rivaroxaban, dabigatran) to prevent strokes or clots. But when a GI bleed starts, these drugs keep your blood from clotting where it needs to, turning a small bleed into a flood. Reversal agents are antidotes that bring clotting ability back fast. Vitamin K helps your liver rebuild clotting factors over 6–24 hours if you're on warfarin. Prothrombin complex concentrate (PCC) delivers ready-made clotting proteins instantly. Idarucizumab is a specific blocker for dabigatran, and andexanet alfa blocks direct Xa inhibitors like apixaban and rivaroxaban. The choice depends on which blood thinner you're taking and how severe the bleed is.

Endoscopic therapy (not a medication but a key intervention)

Endoscopy means passing a flexible camera tube (endoscope) down your throat (for upper GI bleeds) or up through your rectum (for lower GI bleeds) to find the bleeding spot and fix it on the spot. For ulcers, the doctor can inject epinephrine (a drug that tightens blood vessels), place clips to pinch the vessel shut, or use heat (cautery) to seal it. For varices, rubber bands are snapped around the swollen veins to choke off blood flow (band ligation), or a hardening agent is injected (sclerotherapy). For tumors or abnormal vessels, cautery or clips may be used. Upper endoscopy (EGD) should happen within 24 hours of arrival if the bleed is from the esophagus, stomach, or duodenum. Colonoscopy is done once you're stable if the bleed is from the colon.

Interventional radiology embolization

If bleeding doesn't stop with endoscopy, a radiologist can thread a tiny catheter (tube) through an artery in your groin up to the bleeding vessel in your gut. Using live X-ray (fluoroscopy), they find the leaking artery and plug it with coils (tiny metal springs) or particles that clog the vessel like a dam. Blood flow stops, and the bleeding halts. This is called embolization. It's used when endoscopy fails or can't reach the bleed (e.g. small-bowel bleeding, some diverticular bleeds).

Surgery

Surgery is the last resort when endoscopy and embolization fail or aren't possible. A surgeon opens your abdomen, finds the bleeding spot, and fixes it by cutting out the damaged section (resection), oversewing (stitching) the bleeding vessel, or bypassing it. For example, part of the stomach or colon may be removed, or a bleeding ulcer may be sutured shut. Surgery is riskier than endoscopy or embolization, so it's used only when nothing else works or the patient is deteriorating despite maximal medical care.

Where this information comes from

- ACG Clinical Guideline: Upper Gastrointestinal and Ulcer Bleeding, 2021
- ACG Clinical Guideline: Management of Patients with Acute Lower Gastrointestinal Bleeding, 2016
- AGA Institute Guideline on the Management of Acute Lower Gastrointestinal Bleeding, 2016
- Cochrane Review: Pharmacological interventions for acute upper gastrointestinal bleeding

Last reviewed: 2026-07-07