GI Bleed

Blood is leaking out of the gut. Find where it's coming from, replace what's lost, and plug the hole before the body runs out of volume to keep the brain and heart alive.

THE ONE-LINE TRUTH

Bleeding anywhere along the stomach or intestines—from the esophagus down to the rectum—that can silently drain blood until shock arrives.

The chain — how it unfolds

1. A break opens in the gut lining—ulcer, torn vein, burst pouch, or fragile vessel. — why: Blood that should stay sealed inside the vessel wall now spills into the stomach, intestines, or out through the rectum.
2. You see the bleeding: vomiting red blood or coffee-ground material (hematemesis), passing black tarry stool (melena), or bright/dark red blood in the toilet (hematochezia). — why: If the bleed is in the stomach or esophagus, blood may come up through the mouth or get digested by acid into black, sticky stool. If it's in the colon or rectum, blood exits red or maroon because it hasn't been digested.
3. Blood volume drops inside the vessels—less liquid to fill every heartbeat. — why: The circulatory system is a closed loop; when you lose blood out of the loop, there's not enough fluid left to keep pressure steady and deliver oxygen everywhere.
4. The heart speeds up (tachycardia) and blood vessels squeeze (vasoconstriction)—skin turns pale, cool, and sweaty. — why: The body's emergency reflex (the sympathetic nervous system) dumps adrenaline to keep blood pressure up and protect the brain and heart—it's buying time, not fixing the leak.
5. Blood pressure stays normal for a while, then suddenly drops (hypotension). — why: Compensation works—until it doesn't. Once you've lost roughly a third of your blood volume, the heart can't keep up, pressure crashes, and shock arrives.
6. Organs start failing: kidneys stop making urine, brain gets confused, skin stays cold, lactate rises. — why: Without enough oxygen delivery, cells switch to emergency metabolism (making lactate), kidneys shut down to save fluid, and the brain—most sensitive to low oxygen—gets foggy or unconscious.

7. Without fast fluid replacement (IV saline, blood transfusion) and plugging the bleed (scope, medicine, surgery), shock leads to cardiac arrest and death. — why: The heart muscle itself runs out of oxygen and stops—once that happens, the window to bring the patient back closes in minutes.

Spot it — what you see, and why

- Black, tarry stools (melena): Blood from high in the gut (stomach or small intestine) gets digested by stomach acid and turns black and sticky, like tar, by the time it comes out.
- Bright red blood in stool or vomit (hematochezia or vomiting blood (hematemesis)): Blood is pouring fast from the gut — either from the lower bowel (bright red in stool) or the stomach/esophagus (bright red or coffee-ground vomit) — so fast it doesn't have time to turn black.
- Feeling dizzy or lightheaded, especially when standing up: Losing blood drops the volume in your blood vessels, so when you stand up, not enough blood reaches your brain for a moment.
- Fast heart rate (tachycardia): Your heart pumps faster to try to keep oxygen flowing to your organs even though you have less blood in the tank.
- Low blood pressure (hypotension): When you lose a lot of blood, the pressure inside your blood vessels drops because there is less fluid pushing against the walls.
- Pale skin and pale inner eyelids: Red blood cells carry the color; when you lose blood, your skin and the wet tissue inside your eyelids look washed out.

Red flags — act now

- 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

Treat it — in this order

1. Two large-bore IV lines + rapid infusion of crystalloid fluids (normal saline or lactated Ringer's) + transfuse packed red blood cells to keep hemoglobin at or above 7 g/dL → Replaces lost blood volume and pumps liquid back into the vessels so the heart has something to push. Brings oxygen-carrying red cells back so the brain, heart, and kidneys can breathe. Stops the body's panic signals — the racing heart and dropping blood pressure.
2. IV proton pump inhibitor (pantoprazole 80 mg bolus, then 8 mg per hour continuous drip) for suspected upper GI bleed → Shuts down the pumps in the stomach lining that make acid. Without acid burning the tissue, any ulcer or tear can start to heal and stop bleeding. Acid dissolves clots; no acid lets clots stick.
3. Octreotide IV infusion (50 mcg bolus, then 50 mcg per hour) + ceftriaxone 1 g IV daily if varices (burst esophageal veins from liver scarring) are suspected → Octreotide (a synthetic hormone) squeezes the blood vessels in the portal system (the veins around the liver) so less blood tries to escape through the burst vein. Ceftriaxone (an antibiotic) prevents infection of the fluid inside the belly, which happens often when the liver is sick.
4. Upper endoscopy (esophagogastroduodenoscopy, or EGD) within 24 hours to find the bleeding source and treat it with cautery (burning), clips, bands, or injection → A camera on a flexible tube goes down the throat and into the stomach so the doctor can see exactly where the blood is coming from. Then the doctor can burn the vessel shut, clip it closed, band a burst vein, or inject medicine to stop the bleed right there.
5. Colonoscopy once the patient is stable to find lower GI bleeding from diverticulosis (small pouches in the colon wall), angiodysplasia (twisted fragile vessels), hemorrhoids, or cancer → A camera goes through the rectum and up into the colon to find the bleeding spot. The doctor can then burn it, clip it, or inject it to stop the bleeding.

Your top priorities at the bedside

1. Establish two large-bore IV lines (18-gauge or larger) and start crystalloid fluid bolus at wide-open rate. — why: Bleeding-driven (Hemorrhagic) shock (dangerous low blood pressure from bleeding) kills by reducing oxygen delivery to organs; large IVs allow rapid volume replacement because flow rate depends on catheter diameter, and crystalloids (salt water solutions) restore circulating volume fast.
2. Measure heart rate, blood pressure, and orthostatic vital signs every 15 minutes until stable. — why: A fast heart rate (Tachycardia) (fast heart rate over 100) and low blood pressure (hypotension) (systolic BP under 90) indicate hypovolemia (low blood volume); orthostatic changes (BP drops or pulse rises when sitting up) show at least 15 percent blood volume loss even before obvious shock appears.

3. Draw blood for type and crossmatch, complete blood count, INR, PT, metabolic panel, and lactate before giving any products. — why: Hemoglobin and hematocrit lag behind acute bleeding so initial values underestimate loss; crossmatch takes 45 minutes so order early; INR and PT (clotting tests) detect impaired blood clotting (coagulopathy) (poor clotting); lactate over 2 mmol/L means tissues are not getting enough oxygen.