

Lower GI Bleed

Lower GI bleed means bleeding from below the first part of the small intestine — most stop on their own, but you must rule out that the blood is actually coming from higher up and then find the source.

THE ONE-LINE TRUTH

Bleeding from anywhere in the gut below the ligament of Treitz (the first bend of the small intestine, right past the stomach).

The chain — how it unfolds

1. A vessel in the colon wall (from a diverticulum, angiodysplasia, ulcer, or tumor) breaks open and leaks blood into the intestinal lumen. — why: The structural failure (worn artery, fragile vessel, or eroded mucosa) allows blood to escape from the circulation into the space where stool is moving.
2. Blood mixes with stool and appears as bright red, maroon, or dark red blood in the toilet (hematochezia). — why: If bleeding is brisk or from the right colon, blood moves through quickly and stays red; if slower or from the left colon, it may be darker maroon. Black, tarry stool (melena) usually means the blood came from higher up and sat long enough for stomach acid to turn it black.
3. Baroreceptors in the carotid arteries and aortic arch sense falling blood volume and signal the brainstem. — why: Even a small drop in circulating volume is detected, triggering the sympathetic nervous system to release norepinephrine.
4. Heart rate rises (tachycardia), often before blood pressure changes. — why: The heart beats faster to try to keep cardiac output (the amount of blood pumped per minute) steady, compensating for lower volume.
5. Blood vessels in the skin, gut, and kidneys tighten (vasoconstriction), shunting blood to the brain and heart. — why: The body prioritizes vital organs; this is why the skin may feel cool and pale, and why gut starved blood flow (ischemia) can worsen if bleeding continues.
6. If bleeding is slow, the patient may only feel weak, dizzy, or short of breath (from anemia, low red blood cell count), with normal or near-normal blood pressure. — why: The body has time to compensate by increasing heart rate and constricting vessels, so blood pressure stays up even as hemoglobin (the oxygen-carrying protein in red blood cells) drops.

7. If bleeding is brisk (diverticular bleed, large angiodysplasia, or ruptured vessel), blood pressure drops (hypotension), the patient becomes confused or loses consciousness, and urine output falls. — why: Compensation fails when blood loss exceeds the heart's ability to maintain pressure; organs begin to fail from lack of oxygen (shock).
8. Some causes (diverticula, angiodysplasia, hemorrhoids) produce painless bleeding, while others (ischemic colitis, infectious colitis, inflammatory bowel disease) cause crampy abdominal pain. — why: Diverticula and angiodysplasia are vascular problems with no nerve endings, so they do not hurt. Starved blood flow (Ischemia), infection, and inflammation damage the mucosa and trigger pain nerves in the gut wall.

Spot it — what you see, and why

- Bright red or dark red blood in the stool (hematochezia): Blood is coming from somewhere in the colon, rectum, or anus — so close to the exit that it stays red instead of turning black. Common causes are bleeding pouches in the colon wall (diverticula), swollen blood vessels (hemorrhoids or angiodysplasia), cuts in the lining (ischemic colitis or inflammatory bowel disease), or a growth (polyp or cancer).
- Racing heart (tachycardia) and low blood pressure when a lot of blood is lost quickly: When you lose a lot of blood fast, the amount of fluid in your blood vessels drops. Your heart races to push what's left around faster, and your blood pressure falls because there isn't enough volume filling the pipes. This is the body's alarm bell that you need fluids and maybe blood right away.
- Feeling dizzy, weak, or like you might faint (orthostatic symptoms): Not enough blood is reaching your brain when you stand up, because overall blood volume is low from the bleed. The brain runs on oxygen carried by blood, so when supply drops, you feel woozy or weak — especially when gravity pulls blood away from your head as you stand.
- Pale skin and inside of the eyelids look less pink (pallor): Red blood cells carry oxygen and give skin and tissue their pink color. When you lose blood — whether fast or slowly over weeks — you have fewer red cells, so skin and mucous membranes (like the inside of your eyelids) look paler than normal.
- Tiredness and shortness of breath, especially if the bleed has been slow and steady: Slow bleeding over days or weeks drains your iron stores and drops your red-cell count (anemia). Red cells carry oxygen to every tissue, so when their number falls, muscles and organs — including your heart and lungs — don't get enough fuel. You feel tired and breathless because your body is working harder to do normal tasks with less oxygen.

- Cramping or belly pain, sometimes on the left side: Some causes of lower GI bleeding — like blood-starved (ischemic) colitis (colon tissue not getting enough blood) or inflammatory bowel disease (the immune system attacking the colon lining) — irritate or damage the colon wall. That irritation triggers cramping pain. Diverticular bleeding itself usually does not hurt, but other lower-GI problems can.

Red flags — act now

- Blood pressure under 100 systolic, heart rate over 100, or feeling faint when you stand — signs you have lost a dangerous amount of blood and need emergency fluids or transfusion
- Steady, heavy bleeding that does not slow down — this can empty your blood volume fast and needs urgent colonoscopy or angiography (dye X-ray of blood vessels) to find and stop the source
- New confusion, chest pain, or very pale, cold, clammy skin — your brain and heart are not getting enough oxygen because blood volume is too low; this is shock and requires immediate resuscitation
- Blood in the stool plus a recent colonoscopy or colon surgery — you may have a tear or bleeding vessel at the procedure site that needs urgent follow-up

Treat it — in this order

1. Intravenous fluid resuscitation with normal saline or lactated Ringer's, followed by packed red blood cell transfusion to hemoglobin goal of 7–8 g/dL (or 8–9 g/dL if the patient has heart disease) → Replaces lost blood volume so blood pressure stays up and the heart does not have to race. Packed red blood cells carry oxygen to the brain, heart, and kidneys. This stops the cascade into shock.
2. Hold or reverse anticoagulants (warfarin, heparin, direct oral anticoagulants) and antiplatelet drugs (aspirin, clopidogrel) based on bleeding severity and agent type → Removes the chemical block on clotting so the body can plug the broken vessel faster. Warfarin is reversed with vitamin K and prothrombin complex concentrate; heparin with protamine; some direct oral anticoagulants with specific reversal agents (idarucizumab for dabigatran, andexanet alfa for rivaroxaban and apixaban).
3. Colonoscopy with hemostatic intervention (endoscopic clip, band ligation, or thermal coagulation) once bleeding has slowed and the colon is prepared → Finds the exact bleeding spot in the colon and seals it directly by clipping the vessel shut, burning it closed, or banding it. This stops blood loss at the source.

4. Interventional radiology angiographic embolization if colonoscopy fails, is not possible, or bleeding is too brisk to see with a scope → A catheter is threaded through the femoral artery (in the groin) up to the bleeding vessel in the colon. The radiologist injects tiny particles or coils to block the artery and stop blood flow to the broken spot.
5. Surgery (segmental colectomy) if bleeding does not stop with endoscopy or embolization, or if the patient becomes unstable despite resuscitation → Removes the segment of colon that is bleeding. This is definitive — it stops the bleed completely by taking out the source.

Your top priorities at the bedside

1. Establish large-bore intravenous access with at least one 18-gauge or larger IV catheter and start isotonic crystalloid fluid bolus. — why: Large IV catheters allow rapid infusion of fluids and blood products to restore circulating blood volume and prevent shock (dangerously low blood pressure) from blood loss.
2. Obtain orthostatic vital signs (blood pressure and heart rate lying flat and then standing) and monitor continuously if patient shows a fast heart rate (tachycardia) or low blood pressure (hypotension). — why: A drop in blood pressure or rise in heart rate when standing (orthostatic changes) measures the degree of blood volume loss and helps decide if the patient needs urgent transfusion.
3. Send blood samples immediately for type and crossmatch, complete blood count, coagulation panel (PT, PTT, INR), and basic metabolic panel including blood urea nitrogen. — why: Type and crossmatch prepares blood for transfusion; hemoglobin (blood count) measures anemia severity; coagulation tests guide reversal of blood thinners; elevated blood urea nitrogen suggests upper GI source instead.