

Diverticulitis

Diverticulitis happens when a small pouch in your colon gets plugged with stool, swells, and tears—sometimes the infection stays trapped in one spot, but sometimes it spreads and becomes life-threatening.

THE ONE-LINE TRUTH

A diverticulum is a tiny pouch that pushes out through a weak spot in the colon wall, and diverticulitis is when that pouch gets blocked, swells up, and tears or gets infected.

The chain — how it unfolds

1. A pouch in the sigmoid colon gets plugged with hard stool — why: The narrow opening of the diverticulum gets blocked by a fecalith (a small, hard piece of stool) or thick mucus. Stool and germs are trapped inside, with no way out, so pressure starts to build like air trapped in a balloon.
2. Pressure inside the pouch climbs, and blood flow slows down — why: High pressure squeezes the tiny veins in the pouch wall, so blood can't drain out. The wall swells and turns purple (venous congestion). Oxygen can't reach the tissue anymore (ischemia), and the thin wall starts to weaken and crack, like wet tissue paper.
3. Germs multiply, the wall tears, and infection leaks out — why: Bacteria that normally live in your colon (*E. coli*, *Bacteroides*) multiply fast in the low-oxygen pouch and release enzymes that digest the fragile wall. A tiny tear (microperforation) or bigger hole (macroperforation) opens up, and infected stool leaks into the fatty tissue around the colon.
4. You feel sharp pain in your lower left belly — why: The leaked infection irritates nerve endings in the peritoneum (the thin lining inside your belly) and the fatty tissue around the sigmoid colon. Your body also tenses the belly muscles to guard the sore spot, so it hurts sharply when you press on your lower left side.
5. Fever starts, and you feel tired and sick — why: Your immune system detects the infection and releases chemicals (cytokines) that turn up your brain's thermostat, causing fever. Your bone marrow pumps out extra white blood cells to fight the germs. You feel exhausted because the immune response drains a lot of energy.

6. The body builds a wall around the infection — why: White blood cells, fibrin (a sticky clotting protein), and the omentum (a fatty curtain inside your belly) rush to the breach and form a thick wall around it. This traps the infection in a phlegmon (inflamed lump) or abscess (pus pocket), keeping it from spilling into the whole belly—for now.
7. If the wall fails, infected fluid floods your whole belly — why: If the tear is too big, or the abscess bursts, or the body's defenses can't hold, pus-filled (purulent) (pus-filled) or fecal (stool-contaminated) fluid spills into the entire peritoneal cavity. Now the infection spreads everywhere, and you feel severe pain all over your belly, not just one spot.
8. Blood pressure drops, organs fail, and you go into septic shock — why: Bacteria and toxins flood your bloodstream (sepsis). Blood vessels leak and dilate, so blood pressure crashes. Your heart races to pump harder, but can't keep up. Organs like the kidneys, lungs, and brain don't get enough oxygen and start to shut down. This is the life-threatening crash point that needs emergency surgery and ICU care.

Spot it — what you see, and why

- Pain in the lower left belly that gets worse over hours to days: One or more of the small pouches (diverticula) in the colon wall gets blocked by stool, swells up, and becomes infected or inflamed—like a tiny abscess forming in the bowel wall—so the area gets sore and tender.
- Fever (temperature above 100.4°F or 38°C): The body's immune system is fighting the infection in the colon wall, which raises body temperature as part of the defense response.
- Tenderness when you press on the lower left belly (left lower quadrant): The inflamed or infected diverticula lie just beneath that part of the belly, so pressing down pushes on swollen, irritated tissue and causes pain.
- High white blood cell count (leukocytosis) on a blood test: White blood cells are the body's infection fighters, so the bone marrow makes more of them when there is an active infection in the colon.
- Change in bowel habits—either diarrhea or constipation: Inflammation and swelling in the colon wall can narrow the passage for stool or irritate the bowel lining, which speeds up or slows down how quickly things move through.
- Nausea or vomiting: Inflammation anywhere in the belly can send signals to the brain that trigger nausea, and if the bowel slows down or becomes partly blocked, food and gas back up and cause vomiting.

Red flags — act now

- Severe belly pain that spreads everywhere or belly feels hard and board-like (suggests perforation)

- High fever (above 102°F or 39°C) or shaking chills (suggests severe infection or abscess)
- Unable to keep down food or water, or signs of dehydration (dry mouth, dizziness, little urine)
- Large amount of blood in the stool or black tarry stools (suggests significant bleeding)
- Confusion, very low blood pressure, or rapid heart rate (suggests sepsis—infection spreading through the bloodstream)

Treat it — in this order

1. CT scan of the abdomen and pelvis with IV contrast → Shows you exactly which part of the colon is swollen, whether a hole has formed, how big any pus pocket is, and whether the infection is contained or has spread. This one image decides whether the patient stays in the hospital, needs a drainage procedure, or goes straight to surgery.
2. IV antibiotics covering gut bacteria (e.g. ciprofloxacin + metronidazole, OR piperacillin-tazobactam, OR ceftriaxone + metronidazole) for complicated or severe diverticulitis; oral antibiotics (e.g. amoxicillin-clavulanate or ciprofloxacin + metronidazole) for mild, uncomplicated cases if chosen → Kills the bacteria that leaked through the tiny tear in the pouch wall, stops the infection from spreading into the bloodstream or belly, and reduces fever and pain within 48–72 hours. Some current guidelines allow select low-risk patients to skip antibiotics and use observation alone, but most moderate-to-severe cases still need them.
3. Bowel rest (nothing by mouth) and IV fluids during the acute phase → Stops stool from pushing into the inflamed segment, gives the swollen tissue time to calm down, and keeps the patient hydrated while nausea or vomiting may prevent drinking. Once pain and fever improve, you can restart a clear liquid diet, then advance slowly.
4. Percutaneous (through-the-skin) drainage of an abscess if it is 3–4 cm or larger on CT → A radiologist guides a needle or thin tube through the skin into the pus pocket and drains it, shrinking the infection without emergency surgery. This often allows the patient to recover with antibiotics alone and have elective surgery later (or none at all).
5. Emergency surgery (sigmoid colectomy, often with temporary colostomy) if there is a large perforation with stool spilling into the belly, peritonitis (inflamed belly lining), sepsis, or the patient gets worse despite antibiotics and drainage → Removes the damaged piece of colon that is leaking infection, stops the source of contamination, and saves the patient's life. In a very sick patient, the surgeon often brings one end of healthy colon out through the belly as a temporary stoma (colostomy) to let the belly heal; the colon is reconnected later.

Your top priorities at the bedside

1. Check vital signs every 2 to 4 hours, especially temperature, heart rate, and blood pressure, and report fever above 102°F (39°C), heart rate above 110, or systolic blood pressure below 90. — why: Fever and fast heart rate (tachycardia) show how severe the infection is. Low blood pressure (hypotension) means the infection may be spreading to the blood (sepsis) and the patient is going into shock. Early recognition saves lives.
2. Keep the patient NPO (nothing by mouth) if they have severe pain, vomiting, or signs of complicated diverticulitis, and start IV fluids at the rate ordered by the provider. — why: Bowel rest lets the inflamed colon heal without being stretched by food. IV fluids prevent dehydration and keep blood pressure stable when the patient cannot drink. The gut needs time to calm down.
3. Perform a focused abdominal exam every 4 to 8 hours: look for increasing firmness (rigidity), listen for bowel sounds, gently press all four quadrants, and check for rebound tenderness or guarding. — why: A belly that becomes hard and board-like means peritonitis from a perforation. Absent bowel sounds suggest the bowel has stopped moving (ileus) or is blocked. Worsening tenderness or guarding means the infection is spreading and may need surgery.