

Small Bowel Obstruction

Small bowel obstruction means nothing by mouth, a nose tube to drain the stomach, intravenous fluids to replace what you are losing, and emergency surgery if the bowel twists or blood supply is cut off.

THE ONE-LINE TRUTH

Scar tissue from past surgery is the most common reason the small bowel gets blocked.

The chain — how it unfolds

1. Something blocks the small bowel—most often a band of scar tissue (adhesion) from past surgery that kinks the tube shut. — why: Adhesions form whenever the abdomen is opened or inflamed; they act like internal rubber bands that can pull or twist loops of bowel together, creating a mechanical blockage.
2. Food, fluid, and gas pile up behind the blockage, stretching the bowel wall upstream. — why: The bowel keeps producing digestive juice and swallowing air, but nothing can move forward, so pressure builds like water behind a dam and the bowel swells (distends).
3. The stretched bowel triggers waves of crampy pain as it contracts harder to try to push past the blockage. — why: The intestinal muscle squeezes in rhythmic waves (peristalsis) every few minutes, and each wave hurts because the bowel is squeezing against a closed door; you hear high-pitched, tinkling bowel sounds (borborygmi) as fluid and gas rush against the obstruction.
4. The backed-up fluid refluxes into the stomach, triggering vomiting—first food and acid, then green bile, then brown feculent liquid if the blockage is low. — why: The body empties the stomach to relieve upstream pressure; green vomit means bile is backing up from the duodenum (so the blockage is below that point), and brown, foul-smelling vomit means bacteria-rich contents from the lower small bowel have refluxed all the way to the stomach.
5. The bowel pulls water and salt from the bloodstream to dilute its contents, and the body loses liters of fluid into the gut (third-spacing). — why: The swollen bowel acts like a sponge, trapping fluid inside instead of absorbing it; this dehydrates the bloodstream, drops urine output, and can lead to shock if not replaced with intravenous fluids.

6. If the blockage twists the bowel or a hernia squeezes it, the blood vessels collapse (strangulation), cutting off oxygen to the bowel wall. — why: The veins are squeezed shut first (they are thin-walled and collapse easily), so blood flows in through the arteries but cannot drain out; the bowel wall swells, turns purple, and starts to die (necrosis) within hours.
7. Dead bowel tissue leaks bacteria into the abdomen (perforation and peritonitis) and dumps toxins into the bloodstream (sepsis). — why: Once the bowel wall dies, it loses its barrier function; bacteria and digestive enzymes spill into the sterile abdominal cavity, triggering widespread infection, inflammation, and organ failure.
8. The patient crashes—fever spikes, pain becomes constant instead of crampy, heart rate races, blood pressure drops, and confusion sets in. — why: Sepsis triggers a whole-body inflammatory response (cytokine storm) that dilates blood vessels (dropping blood pressure), starves organs of oxygen, and shuts down the kidneys, brain, and heart—once you reach this point, even emergency surgery may not save the patient, so the key is to recognize strangulation (tenderness that does not let up, fever, fast heart rate, high white blood cell count) and operate before perforation happens.

Spot it — what you see, and why

- Crampy belly pain that comes and goes in waves: The small intestine is a muscular tube that squeezes food along in a wave-like motion called the gut's squeezing waves (peristalsis). When something blocks the tube—like scar tissue from old surgery, a twist, or a trapped loop—the bowel squeezes harder and harder trying to push past the blockage. Each big squeeze causes a sharp cramp, then the muscle relaxes for a moment, then it tries again. That's why the pain comes in waves every few minutes instead of staying steady.
- Belly swelling (distention) and a tight, drum-like feel: When the small bowel is blocked, food, liquid, and swallowed air pile up behind the blockage like cars stacking up behind a closed highway exit. Gas made by gut bacteria also gets trapped. All that trapped material stretches the bowel like a balloon, and your belly swells outward. The stretched loops push against the belly wall, making it feel tight and drum-like when tapped.
- Throwing up, often green or yellow-brown and foul-smelling: The blockage stops food and liquid from moving forward toward the colon. As more food and digestive juices (bile from the liver and pancreatic fluid) pile up, the backed-up material has nowhere to go but up. Early on, you vomit partly digested food. Later, as bacteria multiply in the stagnant bowel contents, the vomit turns green or yellow-brown from bile and smells like stool because it contains the same bacteria. The higher the blockage in the small bowel, the sooner and more often vomiting starts.

- No bowel movements and no passing of gas: The blockage acts like a dam—nothing can get past it to reach the colon and exit as stool or gas. At first, you might still pass a small amount of stool or gas that was already sitting downstream in the colon before the blockage happened. But once that empties out, nothing more comes. This complete stop of both stool and gas—called obstipation—is a strong clue that the bowel is fully blocked rather than just slow.
- High-pitched, tinkling bowel sounds early on, then silence later: Early in an obstruction, the small bowel squeezes extra hard trying to force contents through the narrow or blocked spot. Those vigorous squeezes push gas and liquid through tight spaces, making high-pitched, tinkling, or even musical sounds you can hear with a stethoscope—like water rushing through a kinked garden hose. But if the bowel stays blocked for hours or days, the muscle gets exhausted and stops squeezing altogether. Then the belly goes silent—a worrying sign that the bowel may be dying or perforated.
- Severe, constant belly pain (not crampy waves anymore): If crampy, wave-like pain suddenly changes to severe, steady, unrelenting pain, it means the bowel wall itself is in trouble. The obstruction may have strangled a loop of intestine—twisting or pinching its blood supply so tightly that the tissue isn't getting enough oxygen (ischemia). Without oxygen, the bowel wall starts to die (infarction), and dying tissue triggers severe, constant pain. This is a surgical emergency.

Red flags — act now

- Severe, constant belly pain instead of crampy waves—suggests strangulation (blood supply cut off) or dead bowel
- Fever, fast heart rate, or signs of shock (low blood pressure, confusion, cold skin)—suggests infection, perforation, or dying tissue
- Severe tenderness in one spot with guarding or rebound pain—suggests peritonitis from a perforated or dead loop of bowel
- Bloody stool or vomit—suggests bleeding from damaged bowel wall or starved blood flow (ischemia)
- Sudden silence of bowel sounds after they were active—suggests the bowel has stopped working (ileus) or has perforated

Treat it — in this order

1. NPO (nothing by mouth) + IV fluids (normal saline or lactated Ringer's) + electrolyte replacement → Stops the swollen intestine from filling more by resting it. Replaces water, salt, potassium, and chloride lost from vomiting. Keeps the kidneys and heart working while the blockage clears or you prepare for surgery.

2. Nasogastric (NG) tube decompression → Sucks out the backed-up bile and fluid trapped in the stomach and upper small bowel. Relieves nausea and vomiting, lowers pressure inside the intestine so the wall can rest, and reduces the risk of breathing vomit into the lungs.
3. Water-soluble contrast study (Gastrografin challenge) → The contrast shows exactly where the blockage is on X-ray AND acts like a mild laxative that can pull water into the bowel and sometimes move a partial blockage through. Works as both a test and a treatment.
4. Surgery (exploratory laparotomy or laparoscopy): cut adhesions, repair hernia, remove tumor, untwist bowel, or resect dead bowel → Physically removes or fixes the cause (adhesion, hernia, tumor, twist, stricture, or dead segment) so intestinal flow restarts and the person can digest food again. Saves the bowel if done before the wall dies.
5. Pain control with IV opioids (morphine, hydromorphone) or regional anesthesia → Lets the patient rest comfortably while the team watches to see if the blockage clears on its own. Makes monitoring exams and waiting safer to do.

Your top priorities at the bedside

1. Place two large-bore IV catheters (18-gauge or larger) and start isotonic fluid resuscitation with normal saline or lactated Ringer solution at the ordered rate, usually 125 to 250 mL per hour initially — why: The obstructed bowel leaks fluid and electrolytes into the belly and causes vomiting, leading to severe dehydration and hypovolemia (low blood volume) that can drop blood pressure and harm kidneys; large IVs allow rapid fluid replacement
2. Keep the patient NPO (nothing by mouth), remove all food and water from the bedside, and explain that eating or drinking will cause more vomiting and worsen the blockage — why: Food and liquid cannot pass through the obstruction and will collect above the blockage, increasing pressure, stretching the bowel wall, causing more pain and vomiting, and raising the risk of perforation or aspiration (breathing vomit into the lungs)
3. Insert or maintain a nasogastric tube (NG tube) on low intermittent suction and measure output every 4 hours, reporting if output is greater than 200 mL per hour or if the patient vomits with the tube in place — why: The NG tube removes swallowed air and backed-up stomach contents, which decompresses (reduces pressure in) the bowel, relieves nausea and vomiting, and prevents aspiration; high output tells the team the obstruction is severe