

Acute Abdomen

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THE STORY IN ONE SENTENCE

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“Acute abdomen means a belly problem where the smooth lining inside your belly is inflamed. Time is critical.”

Normal anatomy — the body's job

The peritoneum is a smooth, two-layer membrane that lines the abdominal cavity (the space inside your belly) and covers most abdominal organs. The visceral peritoneum wraps the organs and senses stretch or swelling, giving dull pain that is hard to pinpoint. The parietal peritoneum lines the belly wall and has many pain nerves that give sharp, precise pain. Normally, the peritoneum is slippery like wet glass, so organs glide smoothly.

BODY'S JOB

The peritoneum's job is to provide a friction-free surface so organs can move, absorb small amounts of fluid, and act as an alarm system when injured or inflamed. It holds about 50 to 100 milliliters of fluid (a few tablespoons) that acts like lubricant. When inflammation starts, this fluid layer becomes a highway for infection and chemical signals to spread.

1. Picture a balloon lining the inside of a box — that is the parietal peritoneum lining your belly wall.
2. Now picture each organ wrapped in plastic wrap — that is the visceral peritoneum covering your intestines, liver, and spleen.
3. Between the two layers is a thin film of fluid, like a drop of oil between glass plates, so everything slides smoothly.
4. When you bend, organs shift without pain because the slippery layers glide.
5. The visceral layer has stretch sensors but few pain nerves, so a swollen intestine causes dull, vague discomfort you cannot point to.

6. The parietal layer is wired with sharp pain nerves that pinpoint exactly where the problem is.
7. When the parietal layer gets inflamed — by a hole leaking gut contents, blood, or infection — the pain changes from dull and wandering to sharp and fixed in one spot.
8. Your brain reads this shift as a red alarm: something is wrong with the lining itself, not just inside an organ.

What breaks

Usually one broken thing explains all the strange findings together.

CLINICAL TERM

Perforation (a hole in the gut wall), starved blood flow (ischemia) (blood flow too low to feed the tissue), bleeding (hemorrhage) (bleeding into the belly), obstruction with strangulation (blockage that cuts off blood supply), or infection inflames the parietal peritoneum (the lining on the belly wall). Once the parietal peritoneum is inflamed, pain changes from dull and vague to sharp and exact.

How the body compensates

Vital signs can look okay for a while because the body is working hard to cope. The job is to see the crash point coming before it happens.

1. The body keeps vital signs steady at first by raising heart rate, sending blood away from the gut and skin to the brain and heart (centralization), and releasing stress hormones like adrenaline and cortisol.
2. That is the dangerous middle, because compensation hides how sick the patient truly is. A normal blood pressure does not mean the patient is stable — it means the body is still fighting.
3. Watch for mesenteric starved blood flow (ischemia): pain out of proportion to exam findings (belly may be soft but pain is agonizing), rising lactate (above 2 millimoles per liter and climbing), and metabolic acidosis (acid building up in the blood) (blood becomes acidic because dying cells dump acid into the bloodstream).
4. Watch for perforation: sudden onset of sharp, localized pain that spreads across the belly, free air under the diaphragm on imaging, rigid abdomen (board-like), absent bowel sounds, and fever.

5. Watch for ruptured abdominal aortic aneurysm (AAA): sudden tearing or ripping pain in the back or flank, pulsatile (throbbing) mass in the belly, low blood pressure (hypotension), and rapid deterioration. Classic triad is low blood pressure, back or abdominal pain, and pulsatile mass — but all three are present in fewer than half of cases.
6. Watch for strangulated obstruction: colicky pain (comes in waves) that becomes constant, focal tenderness over the trapped loop, fever, rising white blood cell count (leukocytosis), and signs of shock.
7. Look at the trend — how things are changing over minutes to hours — not just one snapshot. A stable blood pressure with a rising heart rate and falling urine output means the patient is sliding down the compensation curve.
8. A stable patient on a downhill slope is not really stable. Early surgical consultation (within the first hour) is the standard of care when acute abdomen is suspected, because waiting for clear-cut shock is waiting too long.

Domino effect

1. Belly lining inflammation triggers body-wide alarm system. — The parietal peritoneum is inflamed by a hole, blocked blood flow, bleeding, twisted blockage cutting off blood, or infection. Inflammatory chemicals (cytokines like TNF-alpha and interleukins) flood into the bloodstream and make blood vessel walls leaky, so fluid shifts out of blood vessels into the belly and tissue spaces where it cannot help deliver oxygen.
2. Heart rate rises early. — Blood volume drops from fluid leaking into the belly, vomiting (which loses stomach acid and water), and third-spacing (fluid trapped in tissue and the belly cavity where it cannot circulate). The heart must beat faster to push the remaining blood around the body and keep oxygen delivery to vital organs alive. A fast heart rate (Tachycardia) (heart rate above 100 beats per minute) is often the first vital sign change.
3. Blood pressure falls if fluid loss continues. — Fluid loss becomes so severe the heart cannot compensate even at top speed. The body shunts blood away from the gut, kidneys, and skin to save the brain and heart (centralization), but eventually pressure falls and shock begins. Low blood pressure (Hypotension) (systolic blood pressure below 90 millimeters of mercury) is a late and ominous sign.
4. Belly muscles freeze and become hard as wood on exam. — Pain nerves in the parietal peritoneum sense danger and trigger a reflex arc through the spinal cord that locks the abdominal wall muscles (involuntary guarding). The belly becomes rigid — hard as a wooden board — because the brain is trying to splint the area and stop any movement that would stretch the inflamed lining and spread the damage. This is different from voluntary guarding, where the patient tenses when you press but relaxes between exams.

5. Bowel stops moving. — Inflammatory chemical signals and pain signals shut down the myenteric plexus (the nerve network in the bowel wall that controls squeeze waves). The gut is paralyzed by inflammation, not by a mechanical blockage. Bowel sounds become absent or very quiet. This paralysis is called a stalled gut (ileus). Gas and fluid build up, distending (swelling) the intestines and making the belly look swollen.
6. Patient lies perfectly still. — Any stretching or jarring of the inflamed peritoneum is agony. Even breathing deeply or coughing hurts, so the patient takes shallow breaths and lies motionless. This is a protective reflex. Contrast this with the thrashing, restless patient with a kidney stone — renal colic causes waves of severe pain but no peritoneal involvement, so movement does not make it worse.
7. Rebound tenderness appears on exam. — When you press on the belly, you compress the inflamed peritoneum against the abdominal wall. When you let go suddenly, the peritoneum snaps back and stretches, triggering a sharp stab of pain. This is rebound tenderness, and it is a hallmark of peritoneal inflammation. The patient may wince, cry out, or guard even more.
8. Trace it back to find the one upstream break. — Each sign — fast heart rate, low blood pressure, paralyzed bowel, rigid belly, stillness, and rebound tenderness — is the body's attempt to survive the crisis by preserving blood flow, limiting oxygen debt, and stopping the spread of inflammation. Reading the signs backward tells you the single upstream cause: a hole, blocked blood flow, bleeding, twisted blockage, or infection of the belly lining. That cause determines whether the patient needs emergency surgery (perforation, strangulation, AAA), urgent imaging and possible intervention (ischemia), or intensive medical management and possible drainage (some infections). The window to reverse the damage is measured in hours, not days.

Symptoms · what the patient feels, and why

- Severe, sharp, localized abdominal pain: Inflammation of the parietal peritoneum (belly wall lining) is sensed by somatic nerves (pain nerves) that give precise, intense pain at the exact site of injury, unlike the dull, vague pain from visceral organs (organs themselves) alone.
- Rebound tenderness (pain worse when examiner releases pressure): Pressing slowly compresses the inflamed peritoneum, but sudden release causes it to snap back and stretch, triggering sharp pain—a classic sign of peritoneal irritation (belly lining is inflamed).
- Involuntary guarding and rigidity (board-like abdomen): Somatic nerves (pain nerves in the belly wall) sense peritoneal inflammation and trigger a reflex that locks the abdominal wall muscles tight to prevent movement and limit spread of irritation and pain.

- Absent or diminished bowel sounds: Inflammatory mediators (chemical signals like cytokines) and pain signals shut down the normal the gut's squeezing waves (peristalsis) (squeeze wave) of the intestines, causing a stalled gut (ileus) (paralyzed bowel) so the gut stops making noise.
- A fast heart rate (Tachycardia) (heart rate greater than 100 beats per minute): Fluid loss from vomiting, third-spacing (fluid leaking into belly where it cannot help), and bleeding drops blood volume, so the heart beats faster to maintain oxygen delivery to vital organs.
- Low blood pressure (Hypotension) (systolic blood pressure less than 90 mmHg) in severe cases: Ongoing fluid loss and inflammatory shock (body-wide response to inflammation) overwhelm the heart's ability to compensate, blood pressure falls, and the body shunts blood away from the gut to preserve the brain and heart.
- Nausea and vomiting: Inflammatory signals, pain, and a stalled gut (ileus) (paralyzed bowel) trigger the vomiting center in the brainstem (part of the brain that controls vomiting), and bowel contents back up because the gut's squeezing waves (peristalsis) (squeeze wave) has stopped.
- Patient lying motionless, knees drawn up: Any movement or stretching of the inflamed peritoneum causes severe pain, so the body reflexively forces stillness and a flexed posture (curled up position) to minimize peritoneal tension (stretch on the belly lining).
- Fever in cases of infection or perforation: Bacterial infection (such as from appendicitis, diverticulitis, or perforated viscus—a hole in the gut) triggers release of pyrogens (fever-causing chemicals) that reset the body's thermostat upward.
- Distention (swollen belly) in obstruction or a stalled gut (ileus): Gas and fluid accumulate in paralyzed or obstructed bowel loops because the gut's squeezing waves (peristalsis) (squeeze wave) has stopped and contents cannot move forward, stretching the abdominal wall outward.

Focused exam

- Rigid abdomen (belly wall is board-hard and won't relax): This tells you the peritoneum (the thin lining that wraps around all your belly organs, like plastic wrap around leftovers) is inflamed. When that lining gets irritated, your belly muscles lock tight automatically to guard the area—you can't make them relax even if you try. A rigid belly can mean a hole has opened in your bowel, blood flow to part of your intestine has been cut off (like a kinked garden hose starving the lawn), bleeding is happening inside your belly, a blocked intestine has strangled its own blood supply, or infection is spreading through the abdominal cavity.

- Rebound tenderness (pain shoots up when you press in then quickly let go): Rebound pain means the peritoneum is inflamed. When you press down, you compress the lining. When you let go, it springs back and stretches—and that stretch sets off sharp pain because the lining is already angry and irritated. This is the signature move of peritoneal irritation, the hallmark of acute abdomen, and a red flag that something inside has broken open or leaked.
- Guarding (patient tenses belly muscles the moment you reach toward them, before you even touch): Guarding is the patient protecting the painful spot on purpose. They know exactly where it hurts, and they tighten up to keep you from pressing there. In acute abdomen, this happens because the peritoneum is inflamed and any touch or movement causes severe pain. It's like flinching away from a bruise—automatic and protective.
- Absent or very quiet bowel sounds: Bowel sounds disappear because the intestines have gone into a stalled gut (ileus) (the gut stops moving, like a conveyor belt that shuts down). When the peritoneum is inflamed, the body halts the gut's squeezing waves (peristalsis) (the wave-like squeezing that pushes food through your intestines, like toothpaste being squeezed through a tube) to avoid stretching the irritated lining. No sound means no gut movement—the system is on lockdown.
- Fast heart rate (over 100 beats per minute) followed by low blood pressure (top number below 90): These are downstream alarm signals. The body speeds up the heart to keep blood flowing to your brain, kidneys, and other vital organs. If blood pressure then drops, it means you've lost circulating volume—fluid is leaking into the belly, infection has entered the bloodstream (sepsis), or bleeding is happening inside. The acute abdomen is now failing to compensate, and the patient is sliding toward shock (organs shutting down from lack of blood flow).
- Fever (especially when paired with rigid belly and shock signs): Fever plus peritoneal signs means infection or sepsis is driving the acute abdomen. When a hole opens in the bowel, blood flow gets cut off and tissue dies, or a blockage lets bacteria cross the bowel wall, bacteria spill into the abdominal cavity and trigger a bodywide inflammatory storm. The fever is your immune system responding to invaders.

Diagnostics · every test answers a question

- Complete blood count (CBC) → Are white blood cells high (pointing to infection or inflammation)? Is hemoglobin falling (pointing to bleeding)?
- Basic metabolic panel (BMP) → Are electrolytes out of balance from vomiting or fluid leaking into the belly? Are the kidneys failing because blood flow is too low?
- Serum lactate → Is the body switching to backup energy mode because tissues aren't getting enough oxygen?
- Lipase → Is the pancreas inflamed and leaking digestive enzymes into the belly?

- Upright chest x-ray or left lateral decubitus abdominal x-ray → Is there free air under the diaphragm (the breathing muscle that separates chest from belly), proving a hole in the stomach or intestine?
- CT scan of abdomen and pelvis with IV contrast → Where is the break? Is there a hole, blockage, dead bowel, abscess (pus pocket), or bleeding?
- Urine or serum pregnancy test (for all people with a uterus of childbearing age) → Could this acute abdomen be a ruptured ectopic pregnancy (fertilized egg growing outside the uterus, usually in a fallopian tube, and bursting) bleeding into the belly?
- Type and screen (blood bank preparation) → What is the patient's blood type, and are there antibodies that will delay transfusion if bleeding worsens?

Treatment logic

- IV fluids (normal saline or lactated Ringer's—1 to 2 liters rapid bolus, then continuous infusion at 125 to 200 mL per hour) → Replaces lost fluid from vomiting, third-spacing (fluid leaking into the belly and bowel wall like water soaking into a towel), and inflammation. Restores blood pressure and tissue blood flow (perfusion) (blood flow feeding organs with oxygen) so the heart doesn't have to race and organs stay alive.
- Broad-spectrum IV antibiotics (e.g., piperacillin-tazobactam 3.375 g every 6 hours, or ceftriaxone 1 to 2 g every 24 hours plus metronidazole 500 mg every 8 hours) → Kills aerobic (oxygen-loving) and anaerobic (oxygen-hating) bacteria spilling from a perforated bowel or crossing through blood-starved (ischemic) bowel wall before they cause septic shock (life-threatening infection in the bloodstream, like poison spreading everywhere). Antibiotics cut death rates in abdominal infection per IDSA and Surgical Infection Society guidelines.
- Emergency surgery or interventional radiology drainage (based on imaging and how stable the patient is) → Removes or repairs the broken part: drains a pus pocket, cuts out dead bowel, patches or removes a perforated segment, relieves a blockage, or stops active bleeding. Source control is the only way to eliminate the cause of peritoneal inflammation and stop the downward spiral.
- Pain medicine (IV opioids, e.g., morphine 2 to 4 mg IV or fentanyl 25 to 50 mcg IV, adjusted to pain level) → Relieves pain so the patient can breathe deeply, cooperate with physical exam, and tolerate movement. Multiple studies and ACEP guidelines confirm that pain control does NOT hide peritoneal signs if you examine carefully—it actually makes the exam easier and more accurate.
- NPO (nothing by mouth) and nasogastric tube if vomiting or a stalled gut (ileus) is present → Stops the stomach from pushing more fluid and air into a blocked or perforated bowel, reduces vomiting and risk of aspiration (breathing in stomach contents, like inhaling water while swimming), and decompresses swollen bowel loops by suctioning out fluid and gas.

- Serial abdominal exams and vital sign monitoring (check every 1 to 2 hours) → Tracks whether the peritoneal inflammation is getting worse, staying the same, or improving. Changes in rigidity, rebound, heart rate, and blood pressure tell you if the patient is crashing and needs faster intervention or stabilizing and can wait for planned surgery.
- Vasopressors (e.g., norepinephrine 0.05 to 2 mcg/kg/min IV) if blood pressure stays low despite fluid resuscitation → Squeezes blood vessels to raise blood pressure and push blood to the brain, heart, and kidneys when fluids alone aren't enough. This buys time to get the patient to surgery or drain an infection source. Norepinephrine is the first-choice vasopressor per Surviving Sepsis Campaign guidelines.

Medications

NPO (nothing by mouth) + IV fluids · Supportive care measure

When the belly is in trouble, we stop food and drink by mouth (NPO stands for 'nil per os,' Latin for 'nothing by mouth'). Why? Because the gut might need surgery soon, and an empty stomach is safer. Also, a sick or blocked gut cannot move food along properly. Instead, we drip balanced salt water (IV fluids) straight into a vein to keep the body hydrated, keep blood pressure steady, and replace fluid that leaked into the belly or was lost through vomiting.

1. Stop all food and drink by mouth so the gut rests and the stomach stays empty.
2. Start an IV line and drip in normal saline or lactated Ringer's solution (salt water that matches the body's chemistry).
3. Monitor how much urine the person makes—this tells you whether the kidneys are getting enough blood.
4. Check vital signs (blood pressure, heart rate) to make sure the body is not running dry or going into shock.

SAFETY WATCH

Too much IV fluid can overload the heart and flood the lungs, especially in older people or those with heart failure. · Too little fluid leaves the kidneys starving for blood and can cause kidney injury. · Watch for swelling, trouble breathing, or very little urine—all clues that fluid balance is off.

Morphine or hydromorphone (opioid pain medicine) · Opioid analgesic

Pain medicine does NOT hide the physical signs doctors find when they press on your belly. In fact, it helps doctors do a better exam. When pain is crushing, belly muscles clench tight (guarding), and the doctor cannot feel what is underneath. Pain medicine relaxes you and softens the guarding, so the doctor can feel masses, swelling, or the rock-hard belly that signals infection in the lining (peritonitis). Modern guidelines (from the American College of

Emergency Physicians and others) say give pain medicine early—it makes the exam better, not worse.

1. The drug locks onto opioid receptors in the brain and spinal cord.
2. It stops pain signals from the belly from being felt as intensely.
3. The person relaxes, belly muscles unclench, and the exam becomes clearer.
4. The doctor can now feel for rebound tenderness, rigidity, masses, or fluid.

SAFETY WATCH

Can slow breathing (respiratory depression), especially in high doses or in people with lung disease. · Can drop blood pressure if the person is already dehydrated or in shock. · Slows gut movement, which can worsen a blockage (ileus or obstruction) if used carelessly—so always pair with clinical monitoring. · Risk of dependence with long-term use, but in the emergency setting for acute abdomen this is not the main worry.

Broad-spectrum antibiotics (e.g., piperacillin-tazobactam, ceftriaxone + metronidazole, or meropenem) · Antibiotics (various classes: beta-lactam, nitroimidazole, carbapenem)

If doctors find signs of infection—such as a hole in the gut (perforation), dead tissue (ischemic bowel), infection of the belly lining (peritonitis), or germs in the blood (sepsis)—they give antibiotics that kill a wide range of bacteria. The belly normally holds trillions of bacteria in the gut; if those bacteria spill into the usually-sterile belly cavity or bloodstream, they cause life-threatening infection. Broad-spectrum means the antibiotic hits many types of bacteria at once (both the ones that need oxygen and the ones that live without it) until lab cultures identify the exact germ.

1. The antibiotic enters the bloodstream through an IV.
2. It travels to the infected area (belly, blood, gut wall).
3. It either breaks apart the bacteria's cell wall (beta-lactams like piperacillin) or stops their DNA from working (others like metronidazole).
4. The bacteria die, and the immune system clears the debris.
5. Doctors adjust the antibiotic once lab results show exactly which germ is growing and which drugs it is sensitive to.

SAFETY WATCH

Allergic reactions (rash, trouble breathing, swelling—especially with penicillins and cephalosporins). · Can harm kidneys (nephrotoxicity), especially if combined with other drugs or if the person is dehydrated. · Can cause diarrhea, including *Clostridioides difficile* (C. diff) infection—a serious gut infection caused by antibiotics killing good bacteria and letting C. diff overgrow. · Metronidazole can cause nerve damage (peripheral neuropathy) with long use; avoid alcohol because it causes severe nausea. · Always check allergies and kidney function before starting.

Nasogastric (NG) tube decompression · Supportive device (not a drug)

If the gut is blocked (bowel obstruction) or paralyzed (ileus), swallowed air, stomach acid, and fluid pile up and bloat the belly. This pressure causes pain, vomiting, and can even split the stomach or gut. A nasogastric tube is a thin plastic tube passed through the nose, down the throat, and into the stomach. We connect it to gentle suction to pull out the trapped fluid and air. This lowers pressure, stops vomiting, and makes the person more comfortable while doctors plan surgery or wait to see if the blockage opens on its own.

1. Lubricate the NG tube and gently thread it through a nostril, down the back of the throat, and into the stomach.
2. Confirm placement (listen over the stomach while injecting air, or check an X-ray) so you know the tube is not in the lung.
3. Connect the tube to low suction (like a vacuum on gentle).
4. Measure and record the fluid that comes out—color, amount, and smell give clues about where the blockage or bleeding might be.
5. Keep the tube in place until the gut starts working again or until surgery.

SAFETY WATCH

Can scratch or irritate the nose, throat, or esophagus. · If placed incorrectly into the lung instead of the stomach, suction can damage the lung or cause pneumonia. · Can cause nosebleeds or sinusitis. · Rarely, forceful insertion can tear (perforate) the esophagus or stomach, especially if there is already disease or scarring.

Red flags

- Low blood pressure (Hypotension) (systolic BP less than 90 mmHg) or signs of shock (cold, clammy skin, confusion, weak pulse)
- Rigid, board-like abdomen with severe rebound tenderness

- Pain out of proportion to physical exam findings (suggests mesenteric starved blood flow (ischemia)—blocked blood vessels feeding the bowel)
- Rising lactate (greater than 2 to 4 mmol/L) or worsening metabolic acidosis (acid building up in the blood) (acid buildup in blood from dying tissue)
- Free air on imaging (gas outside the gut seen on X-ray or CT, suggests perforation requiring emergent surgery)

Nursing priorities

1. Establish large-bore IV access (18-gauge or larger in both arms if possible) and start rapid fluid resuscitation with normal saline or lactated Ringer's—give 1 to 2 liters as fast as it will run, then reassess blood pressure and heart rate every 15 minutes. — Acute abdomen causes third-spacing (fluid leaks from blood vessels into the belly and tissues) and possible bleeding; hypovolemia (low blood volume) drops oxygen delivery to organs and worsens shock; large IVs let you give blood products quickly if needed.
2. Keep the patient NPO (nothing by mouth—no food, no water, no ice chips) and place a nasogastric tube (NG tube—a tube through the nose into the stomach) to suction if bowel sounds are absent or the patient is vomiting repeatedly. — An obstructed or perforated bowel cannot move contents forward; continuing to eat or drink increases vomiting, aspiration risk (breathing stomach contents into the lungs), and pressure that can worsen perforation; NG suction decompresses (relieves pressure in) the stomach and reduces these dangers.
3. Administer broad-spectrum IV antibiotics within 1 hour of recognition—common regimens include piperacillin-tazobactam 3.375 g every 6 hours or ceftriaxone 1 to 2 g every 24 hours plus metronidazole 500 mg every 8 hours. — Perforated or blood-starved (ischemic) (oxygen-starved) bowel spills bacteria into the sterile peritoneal cavity (belly space), causing peritonitis and sepsis (life-threatening infection response); early antibiotics lower mortality by controlling bacterial growth before and after surgery.
4. Monitor vital signs every 15 minutes initially—watch for worsening a fast heart rate (tachycardia) (heart rate above 100), low blood pressure (hypotension) (systolic BP below 90 mmHg), fever above 101°F, decreased urine output below 0.5 mL per kg per hour, or new confusion. — Trending vitals detects early shock (inadequate oxygen delivery to tissues); rising heart rate and falling blood pressure mean ongoing fluid loss or sepsis; low urine output (oliguria) (low urine output) signals kidney poor blood flow (hypoperfusion) (not enough blood reaching the kidneys); mental status changes indicate brain poor blood flow or severe sepsis.

5. Draw stat labs—complete blood count (CBC—counts red cells, white cells, platelets), comprehensive metabolic panel (CMP—checks kidney function, electrolytes, glucose), lactate (a waste product that rises when tissues lack oxygen), lipase (an enzyme that rises in pancreatitis), and blood cultures if fever is present. — Elevated white blood cell count (leukocytosis—usually above 11,000 per microliter) suggests infection; rising lactate above 2 to 4 mmol per L means tissue starved blood flow (ischemia) or sepsis; creatinine (a kidney waste product) elevation shows acute kidney injury from poor blood flow (hypoperfusion); these labs guide resuscitation and help the surgeon decide urgency.
6. Position the patient with knees bent and head of bed elevated 30 degrees if blood pressure tolerates; avoid palpating (pressing on) the abdomen repeatedly. — Flexing the knees relaxes abdominal muscles and reduces tension on the inflamed peritoneum (belly lining), easing pain; repeated exams can worsen peritoneal irritation and obscure surgical findings; one thorough exam by the surgeon is better than multiple partial exams.
7. Prepare for emergency imaging (upright chest X-ray to look for free air under the diaphragm, or CT scan of the abdomen and pelvis with IV contrast) and notify the surgical team immediately—do not delay imaging to give pain medication. — Free air on X-ray proves perforation (a hole in the stomach or intestine); CT shows abscesses (pockets of pus), blood-starved (ischemic) bowel (gray, thickened bowel wall without blood flow), or obstruction; the surgical team needs imaging within 1 hour to plan operation or drainage; pain control should not delay diagnosis because it rarely masks true surgical findings in modern practice.
8. Reassess pain every 30 minutes using a 0-to-10 numeric scale and document location, quality, and any radiation; give IV opioids (such as morphine 2 to 4 mg or fentanyl 25 to 50 mcg) only after the surgeon has examined the patient, unless hospital protocol or surgeon preference allows earlier analgesia. — Pain out of proportion to exam findings is a red flag for mesenteric starved blood flow (ischemia) (dying bowel from artery blockage), which needs emergency vascular surgery; serial pain scores help detect worsening peritonitis or perforation; modern evidence shows appropriate analgesia does not hide surgical diagnoses, but local practice may vary so confirm with your team.

Sources

- American College of Surgeons ATLS 10th edition
- Eastern Association for the Surgery of Trauma (EAST) Practice Management Guidelines
- World Society of Emergency Surgery (WSES) Guidelines 2017
- American College of Emergency Physicians (ACEP) Clinical Policy on Acute Abdominal Pain

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