

Opioid Withdrawal

A plain-English guide for you and your family

WHAT IS HAPPENING

When someone takes opioids every day, the brain gets used to having that drug press down on its natural alarm system — a tiny cluster of nerve cells in the brainstem called the locus coeruleus, which normally releases norepinephrine (a chemical that wakes you up and gets you ready for danger). Over time, the brain turns UP the alarm system to balance out the drug pushing it down. Then, when the opioid is suddenly gone, that overactive alarm floods the body with stress signals all at once. The result is sweating, goosebumps, wide pupils, racing heart, stomach cramps, diarrhea, muscle aches, yawning, tears, runny nose, restlessness, trouble sleeping, and intense craving for the drug. None of these symptoms are dangerous to most people, but they feel terrible — like the worst flu mixed with crushing anxiety — and they drive the person to use again just to make it stop. Withdrawal from short-acting opioids (heroin, fentanyl, oxycodone) starts 6–12 hours after the last dose and peaks around day two; withdrawal from long-acting drugs (methadone, buprenorphine) starts 24–72 hours later and lasts longer but is often milder. The key is that withdrawal itself won't kill you, but the desperation it causes can lead to unsafe use, overdose (because tolerance drops fast once you stop), or leaving treatment early. Medicine — buprenorphine, methadone, or comfort care with clonidine and other supports — can quiet the alarm system and let the brain rebalance safely.

What you might feel

- Muscle aches and bone pain
- Goose bumps and sweating
- Nausea, vomiting, and diarrhea
- Dilated pupils (big, wide pupils)
- Fast heart rate and high blood pressure
- Restlessness and trouble sleeping
- Yawning and runny nose
- Strong drug cravings

Call the doctor right away if...

- Severe dehydration from vomiting and diarrhea (dry mouth, no urine, dizziness when standing)
- Chest pain or very fast heart rate over 120 that does not slow down
- Confusion, seizure, or passing out (rare in pure opioid withdrawal but may mean another drug or medical problem)
- Suicidal thoughts or plan to harm self
- Using alone with no one nearby in case of accidental overdose if the person relapses

What the care team will do

- Check vital signs every 2–4 hours and watch for heart rate over 120, systolic blood pressure over 160, or oxygen saturation below 92 percent.
- Use the COWS score every 4 hours and give buprenorphine only when the score is 8 or higher.
- Start IV normal saline at 125–150 mL per hour if the patient has vomited more than three times, has diarrhea more than five times, or has not urinated in six hours.
- Give clonidine 0.1–0.2 mg by mouth and recheck blood pressure 60 minutes later; hold the dose if systolic pressure is below 90 or heart rate is below 60.
- Offer ondansetron 4–8 mg by mouth or IV every 8 hours for nausea and loperamide 4 mg by mouth after each loose stool, up to 16 mg per day.
- Place the patient on fall precautions with the bed alarm on and the bed in the lowest position.
- Connect the patient to an addiction counselor, case manager, and outpatient buprenorphine or methadone clinic before discharge, and give a same-day appointment.
- Ask about suicidal thoughts every shift and create a safety plan with the patient if thoughts are present; remove sharp objects and ensure one-to-one observation if there is a plan or intent.

Medicines you may be given — and why

Buprenorphine (Suboxone, Subutex)

Buprenorphine sticks tightly to the brain's mu-opioid receptors (the docking spots where opioids like heroin or oxycodone usually attach) but only turns them on partway. This tricks the brain into thinking it's still getting opioids, which stops the withdrawal panic without causing a dangerous high or deep sedation. It acts like a dimmer switch instead of an on-off switch.

Methadone

Methadone activates the same mu-opioid receptors that heroin or prescription opioids hit, but it does so smoothly and slowly over 24 to 36 hours. This steady signal stops withdrawal, kills cravings, and prevents the highs and crashes that drive compulsive use. Think of it as replacing a roller coaster with a flat, safe road.

Clonidine

Clonidine quiets the locus coeruleus (a tiny alarm center deep in the brainstem that floods the body with norepinephrine during stress or withdrawal). When opioids are suddenly removed, the locus coeruleus fires wildly, releasing norepinephrine that causes sweating, shaking, fast heart rate, high blood pressure, anxiety, and muscle aches. Clonidine acts like a gentle brake pedal on this center, dialing down those physical panic symptoms.

Loperamide (Imodium)

Loperamide attaches to opioid receptors in the wall of the intestines and slows down the wave-like muscle squeezes (peristalsis) that push food and waste through. During opioid withdrawal, the gut speeds up dramatically and causes severe cramping and diarrhea. Loperamide puts the brakes back on, firming up stool and easing cramps. Because it cannot cross the blood-brain barrier, it does NOT affect withdrawal cravings or other brain symptoms and does NOT cause a high.

Ondansetron (Zofran)

Ondansetron blocks serotonin (a chemical messenger) from attaching to 5-HT₃ receptors in two key places: the chemoreceptor trigger zone (the brain's vomit command center, located in the brainstem) and the vagus nerve endings in the gut. During opioid withdrawal, the gut releases extra serotonin and sends panic signals up the vagus nerve, which the brain reads as 'poison—get it out,' triggering nausea and vomiting. Ondansetron stops those signals, calming the stomach.

Hydroxyzine (Vistaril, Atarax)

Hydroxyzine blocks histamine (a chemical that normally keeps you alert and ready to react) from attaching to H₁ receptors in the brain. This has a mild sedating effect and also quiets some of the overactive circuits that drive anxiety, restlessness, and insomnia during withdrawal. It does NOT work on opioid receptors or GABA receptors (like benzodiazepines do), so it is much safer and non-addictive, but also gentler.

Where this information comes from

- ASAM National Practice Guideline 2020

- SAMHSA TIP 63: Medications for Opioid Use Disorder
- World Health Organization Guidelines for Management of Opioid Dependence
- American Academy of Addiction Psychiatry

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