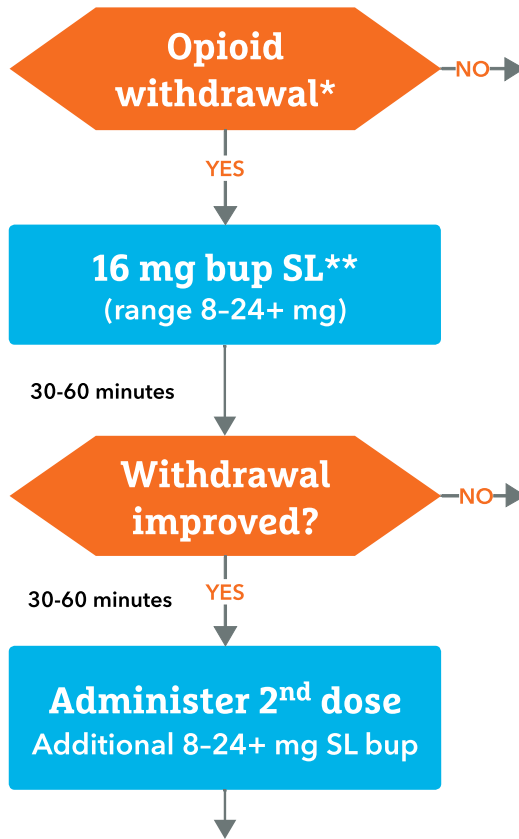


Connect with your patient: Accurate diagnosis and treatment requires trust, collaboration, and shared decision making.



Rx self-directed start:

- Wait for severe withdrawal then start with 8-24+ mg SL.
- Rx per "Discharge" box below.

If no improvement or worse, consider:

Worsening withdrawal (common): Occurs with lower starting doses and heavy tolerance; improves with more bup (additional 8-16 mg SL).

Other substance intoxication or withdrawal: Continue bup and manage additional syndromes.

Bup side-effects: e.g., nausea or headache. Continue bup and treat side-effects with supportive medications.

Medical illness: Continue bup and manage underlying condition.

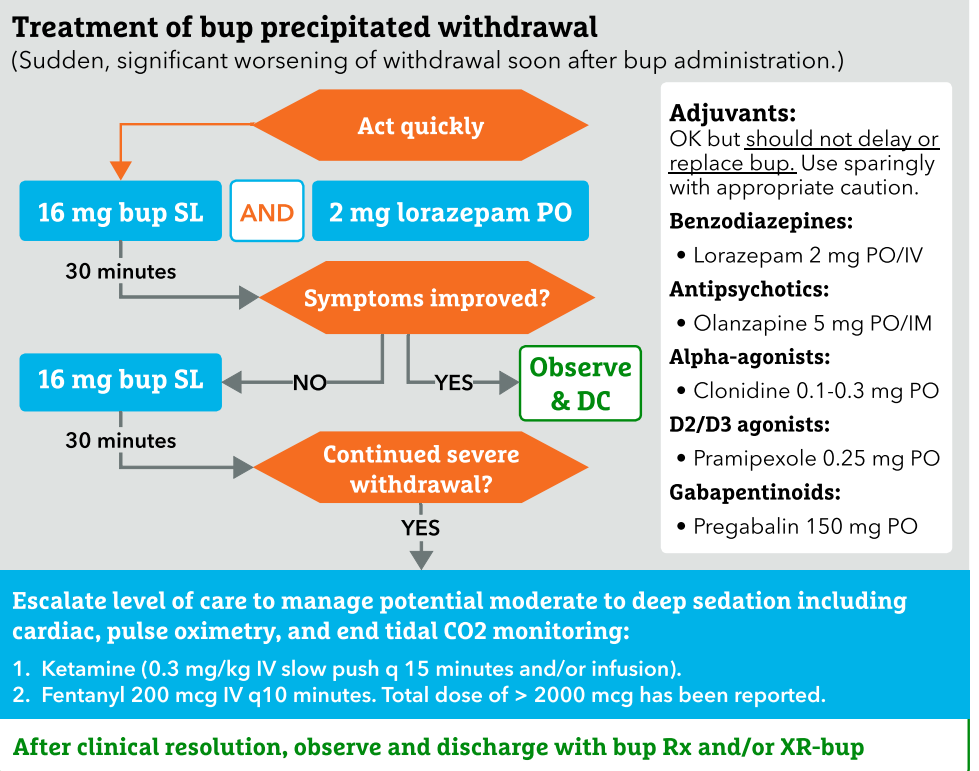
If sudden & significant worsening, consider precipitated withdrawal (rare): See box below.

- *Diagnosis Tips for Opioid Withdrawal:**
1. Look for at least two clear objective signs not attributable to something else: large pupils, yawning, runny nose & tearing, sweating, vomiting, diarrhea, gooseflesh/piloerection, tachycardia.
 2. Confirm with the patient that they feel 'bad' withdrawal and they feel ready to start bup. If they feel their withdrawal is mild, it is likely too soon.
 3. As needed, consider using the COWS (clinical opioid withdrawal scale). Start if COWS ≥ 8 with ≥ 2 objective signs.
 4. Withdrawal sufficient to start bup typically occurs 24-36 hrs after decreased/stopped use, but can vary from 6-72 hrs. Methadone withdrawal commonly takes longer.

- **Bup Dosing Tips:**
1. Respect patient preference. Shared decision making, flexibility, and collaboration are essential.
 2. Heavy dependence/tolerance (e.g., fentanyl) may need higher doses of bup.
 3. Low dependence/tolerance may do well with lower doses of bup.
 4. Starting bup may be delayed or modified if there complicating factors:
 - Altered mental status, delirium, intoxication
 - Severe acute pain, trauma, or planned surgery
 - Severe medical illness
 - Long-term methadone maintenance

Discharge

- Prescribe at least a 2 week supply of 16-32 mg SL bup per day.
- Example 2 week order: buprenorphine/ naloxone 8/2 mg film 1 film SL TID #42,1 refill. Notes to pharmacy: OK to substitute tablets or monoproduct. Bill Medicaid FFS, ICD 10 F11.20.
- Dispense/distribute naloxone in-hand from the ED.



Bup Rx Notes

- The X-waiver program has ended. Only a DEA license is needed to prescribe (schedule III).
- Either bup or bup/nx SL films or tab are OK.
- Bup monoproduct or bup/nx OK in pregnancy.

For pregnancy: [Bup in Pregnancy](#)
 For post-overdose: [Bup Opioid Overdose](#)
 For minors: [Caring for Youth](#)
 For self-directed starts: [Bup Self-Start](#)

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REFERENCES

- Ang-Lee K, Oreskovich MR, Saxon AJ, et al. Single dose of 24 milligrams of buprenorphine for heroin detoxification: an open-label study of 5 inpatients. *J Psychoactive Drugs*. 2006 Dec;38(4): 505-512. doi: 10.1080/02791072.2006.10400589
- Chambers LC, Hallowell BD, Zullo AR, Paiva TJ, Berk J, Gaither R, Hampson AJ, Beaudoin FL, Wightman RS. Buprenorphine dose and time to discontinuation among patients with opioid use disorder in the era of fentanyl. *JAMA Netw Open*. 2023;6(9):e2334540-e2334540
- D'Onofrio G, O'Connor PG, Pantalon MV, et al. Emergency department-initiated buprenorphine/naloxone treatment for opioid dependence: a randomized clinical trial. *JAMA*. 2015 Apr 28;313(16): 1636–1644. doi:10.1001/jama.2015.3474
- Greenwald MK, Herring AA, Perrone J, Nelson LS, Azar P. A neuropharmacological model to explain buprenorphine induction challenges. *Ann Emerg Med*. 2022
- Greenwald MK, Comer SD, Fiellin DA. Buprenorphine maintenance and μ -opioid receptor availability in the treatment of opioid use disorder: implications for clinical use and policy. *Drug Alcohol Depend*. 2014;154:1-11. doi:10.1016/j.drugalcdep.2014.07.035
- Herring AA, Perrone J, Nelson LS. Managing opioid withdrawal in the emergency department with buprenorphine. *Ann Emerg Med*. 2019;73(5): 481-487. doi: 10.1016/j.annemergmed.2018.11.032
- Hern GH, Lara V, Goldstein D, et al. Prehospital buprenorphine treatment for opioid use disorder by paramedics: first year results of the EMS buprenorphine use pilot. *Prehosp Emerg Care*, forthcoming. 2022. doi: 10.1080/10903127.2022.2061661
- Kutz I, Reznik V. Rapid heroin detoxification using a single high dose of buprenorphine. *J Psychoactive Drugs*. 2001 Apr-Jun;33(2): 191-193. doi: 10.1080/02791072.2001.10400484
- Jacobs P, Ang A, Hillhouse MP, et al. Treatment outcomes in opioid dependent patients with different buprenorphine/naloxone induction dosing patterns and trajectories. *Am J Addict*. 2015 Oct;24(7): 667–675. doi:10.1111/ajad.12288
- Jones HE, Johnson RE, Lorraine Milio. Post-cesarean pain management of patients maintained on methadone or buprenorphine. *Am J Addict*. 2006 May-Jun;15(3)258-259. doi: 10.1080/10550490600626721
- Liebschutz JM, Crooks D, Herman D, et al. Buprenorphine treatment for hospitalized, opioid-dependent patients: a randomized clinical trial. *JAMA Intern Med*. 2014 Aug;174(8): 1369–1376. doi:10.1001/jamainternmed.2014.2556
- Suarez EA, Huybrechts KF, Straub L, Hernández-Díaz S, Jones HE, Connery HS, Davis JM, et al. Buprenorphine versus methadone for opioid use disorder in pregnancy. *N Engl J Med*. 2022;387(22):2033-2044
- Oreskovic MR, Saxon AJ, Ellis MLK, Malte CA, Roux JP, Knox PC. A double-blind, double-dummy, randomized, prospective pilot study of the partial mu opiate agonist, buprenorphine, for acute detoxification from heroin. *Drug Alcohol Depend*. 2005 Jan 7;77(1): 71-79. doi: 10.1016/j.drugalcdep.2004.07.008
- Snyder H, et al. High-dose buprenorphine initiation in the emergency department among patients using fentanyl and other opioids. *JAMA Netw Open*. 2023;6(3):e231572
- Walsh SL, Preston KL, Stitzer ML, Cone EJ, Bigelow GE. Clinical pharmacology of buprenorphine: ceiling effects at high doses. *Clin Pharmacol Ther*. 1994 May;55(5): 569-580. doi: 10.1038/clpt.1994.71
- Weimer MB, Herring AA, Kawasaki SS, Meyer M, Kleykamp BA, Ramsey KS. ASAM Clinical considerations: Buprenorphine treatment of opioid use disorder for individuals using high-potency synthetic opioids. *J Addict Med*. 2023;10(7):e1097