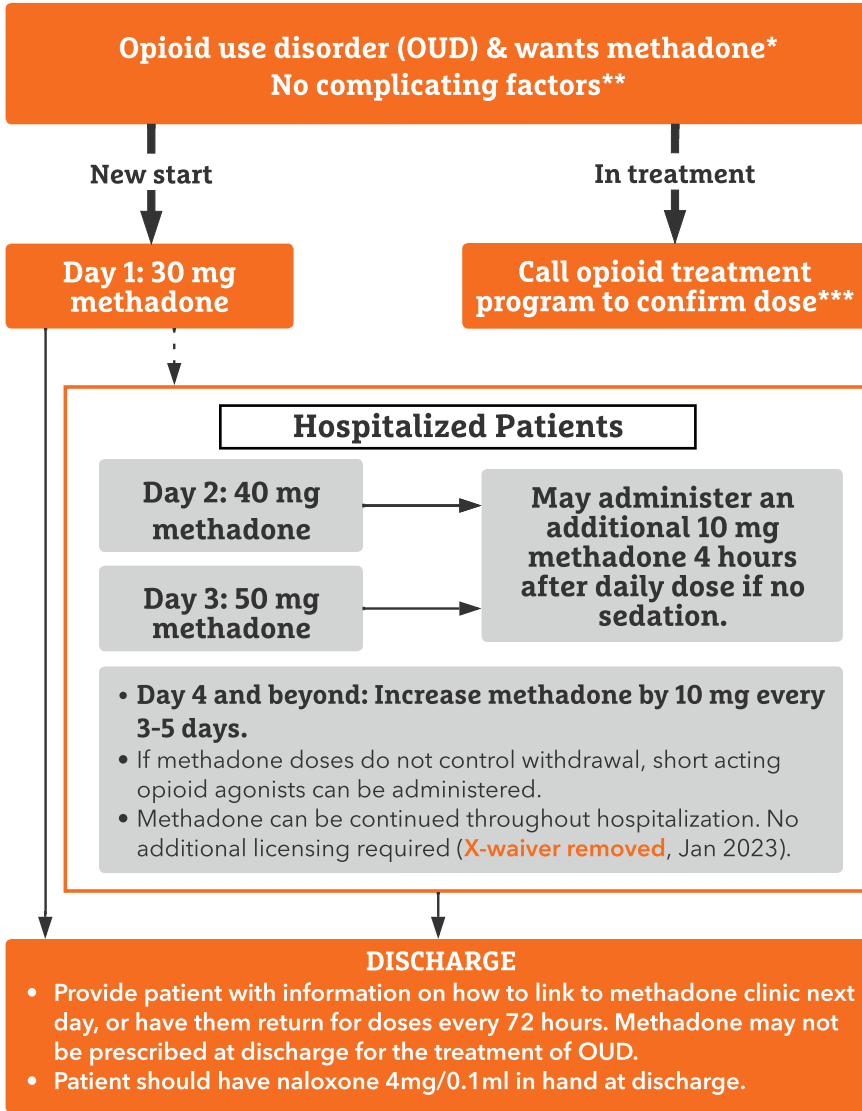




# Methadone Quick Start



Follow-up clinic (phone, address, intake hours):

Follow-up clinic (phone, address, intake hours):

### Methadone vs buprenorphine (bup) for patients\*

- Methadone ED starts are only suggested when patients are able to follow up in a methadone clinic (OTP) within 72 hours. Work with local clinics to expedite follow up.
- Methadone and bup are both great options that decrease all cause mortality and overdose.
- If a patient is struggling to wait for withdrawal to start bup, methadone may be an option.
- You usually must go to an OTP for daily dosing.
- If methadone dose too high or if mixed with other depressants, may cause sedation.

### Complicating Factors\*\*

- RR <10 or sedated
- Low opioid tolerance
- Allergy to methadone
- Known QTc ≥500 (do not need to check EKG to start methadone routinely)
- Recent use of benzodiazepines, alcohol, or other sedatives
- Severe liver disease
- Medically unstable
- Methadone safe in pregnancy & breastfeeding

### Patients already in methadone treatment\*\*\*\*

- Call clinic to confirm dose amount and when it was last administered.
- If unable to confirm dose, treat as a new start until able to confirm.
- Methadone dispensed from a clinic is never listed in CURES, and some hospitals urine toxicology will not show methadone.
- If 1-2 days missed, administer the full dose.
- If additional days missed, ask the clinic for recommended dosing. Ex: 90% if 3 days missed, 80% if 4 days missed, 70% if 5 days missed, 60% if 6 days missed, 50% if 7 days missed, 40% if 8 days missed.

### Regulations

- General acute care hospitals may treat addiction with methadone under their existing license.
- ED may administer methadone for 3 days in a row. If a patient is hospitalized, administer throughout their hospitalization.
- Methadone cannot be prescribed for the treatment of OUD.
- Hospitals can apply to the DEA for a waiver to dispense a 72 hour supply of methadone to help patients connect to a clinic.
- OTPs can only provide methadone if patients have been opioid dependent for at least 6 months.

### Pharmacologic notes:

- Can use adjunctive medications for withdrawal symptoms.
- In cases of high tolerance, including fentanyl use, may need additional dose of full opioid agonists to control withdrawal; only while patient is in the hospital.
- Sedation from methadone peaks at 3-4 hours after each dose, patients experiencing sedation should not receive additional doses.
- Half-life of methadone is more than 24 hours, so doses can stack and sedation can occur after multiple days at the same dose.
- Bup should not be given to patients who are currently taking methadone, as this would cause withdrawal.
- Methadone has many significant drug-drug interactions. Before starting new medications, always check the effect on methadone levels to avoid over-sedation or withdrawal.

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MEDICATION INTERACTIONS

Medications that increase methadone metabolism/decrease methadone effect (INCREASED RISK FOR OPIOID WITHDRAWAL)		
<ul style="list-style-type: none"> <li>Phenytoin</li> <li>Dexamethasone</li> <li>Ritonavir containing drugs incl: nirmatrelevir/ritonavir (Paxlovid)</li> </ul>	<ul style="list-style-type: none"> <li>Phenobarbital</li> <li>Rifampicin/rifabutin</li> <li>Vitamin C (ascorbic acid)</li> </ul>	<ul style="list-style-type: none"> <li>Carbamazepine</li> <li>NNRTIs (efavirenz, nevirapine)</li> <li>St John’s Wort</li> </ul>
Medications that decrease methadone metabolism/increase effect (INCREASED SEDATION/CNS DEPRESSION)		
<ul style="list-style-type: none"> <li>SSRI Antidepressants</li> <li>Cimetidine</li> <li>Chlorpromazine</li> <li>Azoles</li> </ul>	<ul style="list-style-type: none"> <li>Fluoroquinolones (increased sedation and prolonged QTc time)</li> <li>Risperidone</li> <li>Grapefruit juice</li> </ul>	<ul style="list-style-type: none"> <li>Diltiazem</li> <li>Dextromethorphan</li> <li>Indinavir</li> </ul>

REFERENCES

Dolophine® Hydrochloride. Package insert. Roxane Laboratories, Inc.

Faggiano F, Vigna-Taglianti F, Versino E, Lemma P. Methadone maintenance at different dosages for opioid dependence. *Cochrane Database of Syst Rev*. 2003;(3): CD002208. doi: 10.1002/14651858.CD002208.

Gibson A, Degenhardt L, Mattick RP, Ali R, White J, O’Brien S. Exposure to opioid maintenance treatment reduces long-term mortality. *Addiction*. 2008 Mar;103(3): 462-468. doi: 10.1111/j.1360-0553.2007.02090.x.

Steinecker HW. Medication Assisted Treatment for Narcotic Addiction (Rescinds AFL 19-02): Health and Safety Code (HSC) section 11217(h). California Department of Public Health. [cdph.ca.gov/Programs/CHCQ/LCP/CDPH%20Document%20Library/AFL-19-02.1.pdf](http://cdph.ca.gov/Programs/CHCQ/LCP/CDPH%20Document%20Library/AFL-19-02.1.pdf). Published January, 2019. Accessed February 2023.

Hemmons P, Bach P, Colizza K, Nolan S. Initiation and Rapid Titration of Methadone in an Acute Care Setting for the Treatment of Opioid Use Disorder: A Case Report. *J Addict Med*. 2019;13(5):408-411. doi:10.1097/ADM.0000000000000507.

Lee HY, Li JH, Wu LT, Wu JS, Yen CF, Tang HP. Survey of methadone-drug interactions among patients of methadone maintenance treatment program in Taiwan. *Substance Abuse Treatment, Prevention, and Policy*. 2012 Mar 20;7(11). doi: 10.1186/1747-597X-7-11.

Moody DE, Liu F, Fang WB. Azole antifungal inhibition of buprenorphine, methadone and oxycodone *in vitro* metabolism. *Journal of Analytical Toxicology*. 2015 June;39(5): 374-386. doi: 10.1093/jat/bkv030.

Saxon AJ. Methadone and buprenorphine-associated drug-drug interactions. Presentation for Providers Clinical Support System.

Strain EC, Bigelow GE, Liebson IA, Stitzer ML. Moderate- vs high-dose methadone in the treatment of opioid dependence: A randomized trial. *JAMA*. 1999 Mar 17;281(11): 1000–1005. doi: 10.1001/jama.281.11.1000.

Strain EC, Stitzer ML, Liebson IA, Bigelow GE. Dose-response effects of methadone in the treatment of opioid dependence. *Ann Intern Med*. 1993 Jul 1;119(1): 23-27. doi: 10.7326/0003-4819-119-1-199307010-00004.

Treatment Improvement Protocol Tip 63: Medications for Opioid Use Disorder for Healthcare and Addiction Professionals, Policymakers, Patients, and Families. Substance Abuse and Mental Health Services Administration. [https://store.samhsa.gov/sites/default/files/SAMHSA\\_Digital\\_Download/PEP20-02-01-006\\_508.pdf](https://store.samhsa.gov/sites/default/files/SAMHSA_Digital_Download/PEP20-02-01-006_508.pdf). Updated 2020. Accessed August 4, 2020.

Weschules DJ, Bain KT, Richeimer S. Actual and potential drug interactions associated with methadone. *Pain Medicine*. 2008 April;9(3): 315-344. doi: 10.1111/j.1526-4637.2006.00289.x.