



National Institute  
on Drug Abuse

# Effective Treatments for Opioid Addiction

## SCIENCE DRIVEN SOLUTIONS

### IMPROVING MEDICATIONS

In November 2017, the U.S. Food and Drug Administration approved **Sublocade™**, the first once-monthly buprenorphine injection for moderate-to-severe opioid use disorder in adult patients who have initiated treatment with the transmucosal buprenorphine-containing products. This medication, in addition to **Probuphine®**, an implantable buprenorphine formulation approved in May 2016, eliminate the need for daily dosing and improve treatment retention. Read more in the NIDA press release [Probuphine: A Game-Changer in Fighting Opioid Dependence](#).

### REACHING PATIENTS IN NEED

The **emergency department** (ED) provides a prime opportunity to screen patients for opioid use disorder and initiate MAT. Patients who initiate MAT in the ED are more than twice as likely to remain engaged in treatment compared to patients referred for treatment. Read more in the [JAMA article Emergency Department-Initiated Buprenorphine/Naloxone Treatment for Opioid Dependence](#).

A recent study found treatment with extended-release naltrexone reduced relapse rates among **criminal justice involved** adults with a history of opioid dependence. Read more in the [New England Journal of Medicine article Extended-Release Naltrexone to Prevent Opioid Relapse in Criminal Justice Offenders](#).

## OPIOID USE DISORDER AFFECTS MILLIONS

- Over 2.5 million Americans suffer from opioid use disorder which contributed to over 28,000 overdose deaths in 2014.<sup>1,2</sup>
- Use of opioids, including heroin and prescription pain relievers, can lead to neonatal abstinence syndrome as well as the spread of infectious diseases like HIV and Hepatitis.

## EFFECTIVE MEDICATIONS ARE AVAILABLE

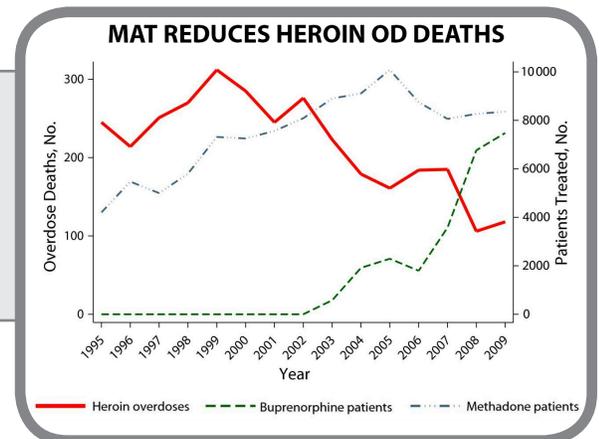
**Medications, including buprenorphine (Suboxone®, Subutex®), methadone, and extended release naltrexone (Vivitrol®), are effective for the treatment of opioid use disorders.**

- Buprenorphine and methadone are “essential medicines” according to the World Health Organization.<sup>3</sup>
- A NIDA study shows that once treatment is initiated, a buprenorphine/naloxone combination and an extended release naltrexone formulation are similarly effective in treating opioid use disorder. However, because naltrexone requires full detoxification, initiating treatment among active users was more difficult with this medication. Once detoxification was complete, both medications had a similar effectiveness.
- Medications should be combined with behavioral counseling for a “whole patient” approach, known as Medication Assisted Treatment (MAT).

**MAT DECREASES** opioid use, opioid-related overdose deaths, criminal activity, and infectious disease transmission.<sup>4,5,6</sup> After buprenorphine became available in Baltimore, heroin overdose deaths decreased by 37 percent.<sup>6</sup>

**MAT INCREASES** social functioning and retention in treatment.<sup>4,5</sup> Patients treated with medication were more likely to remain in therapy compared to patients receiving treatment that did not include medication.<sup>4</sup>

**Treatment of opioid-dependent pregnant women with methadone or buprenorphine IMPROVES OUTCOMES** for their babies; MAT reduces symptoms of neonatal abstinence syndrome and length of hospital stay.<sup>7</sup>



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# MEDICATIONS ARE NOT WIDELY USED

Less than 1/2 of privately-funded substance use disorder treatment programs offer MAT and only 1/3 of patients with opioid dependence at these programs actually receive it.<sup>8</sup>

- The proportion of opioid treatment admissions with treatment plans that included receiving medications fell from 35 percent in 2002 to 28 percent in 2012.<sup>9</sup>
- Nearly all U.S. states do not have sufficient treatment capacity to provide MAT to all patients with an opioid use disorder.<sup>10</sup>

## ADDRESSING MYTHS ABOUT MEDICATIONS

**Methadone and buprenorphine DO NOT substitute one addiction for another.**

When someone is treated for an opioid addiction, the dosage of medication used does not get them high—it helps reduce opioid cravings and withdrawal. These medications restore balance to the brain circuits affected by addiction, allowing the patient's brain to heal while working toward recovery.

**Diversion of buprenorphine is uncommon; when it does occur it is primarily used for managing withdrawal.**<sup>11,12</sup> Diversion of prescription pain relievers, including oxycodone and hydrocodone, is far more common; in 2014, buprenorphine made up less than 1 percent of all reported drugs diverted in the U.S.<sup>13</sup>

## ADDITIONAL INFORMATION

**If you or someone you care about has an opioid use disorder, ask your doctor about available MAT options and about naloxone, an opioid antagonist that can reverse an opioid overdose.**

- Many states allow you to get naloxone from a pharmacist without bringing in a prescription from a physician; go to [NIDA's Naloxone webpage](#) to learn more.
- To learn more about MAT, see [NIDA's Treatment Approaches for Drug Addiction DrugFacts](#)
- To find a treatment provider, go to the Substance Abuse and Mental Health Services Administration's [Opioid Treatment Program Directory](#)

1. [Center for Behavioral Health Statistics and Quality \(2016\)](#)
2. [Centers for Disease Control and Prevention \(CDC\). NVSS, Mortality File](#)
3. [World Health Organization. Proposal for the inclusion of methadone in the WHO models list of essential medicines. \(2005\)](#)
4. [RP Mattick et al. Cochrane Database of Systematic Reviews \(2009\)](#)
5. [RP Mattick et al. Cochrane Database of Systematic Reviews \(2014\)](#)
6. [Schwartz et al. Am J Public Health \(2013\)](#)
7. [ACOG & ASAM. \(2012\)](#)
8. [HK Kundsén et al. Journal of Addiction Medicine \(2011\)](#)
9. [SAMHSA's Treatment Episode Data Set \(TEDS\) 2002-2012, \(2013\)](#)
10. [CM Jones et al. Am. J. Public Health \(2015\)](#)
11. [AR Bazazi, et al. J Addict Med. \(2011\)](#)
12. [Schuman-Olivier, Z. et al. J. Subst. Abuse Treat. \(2010\)](#)
13. [Drug Enforcement Agency Office of Diversion Control. National Forensic Laboratory Information System \(NFLIS\) 2014 Annual Report](#)

# SOLUTIONS DRIVEN SCIENCE

## NEW TREATMENTS

**Vaccines** currently under development target opioids in the bloodstream and prevent them from reaching the brain and exerting euphoric effects.

Researchers are exploring the potential of **Transcranial Direct Current Stimulation**, a novel, non-invasive brain stimulation technique, for treating opioid use disorder.

## IMPROVING TREATMENT DELIVERY

Researchers are exploring how the health care system can reach more people in need of treatment and helping providers understand which treatments will be most effective for which patients.

## REACHING JUSTICE-INVOLVED YOUTH

NIDA-funded research is aimed at identifying the most effective strategies for improving the delivery of evidence-based prevention and treatment services for youth through our **Juvenile Justice Translational Research on Interventions for Adolescents in the Legal System (JJ-TRIALS)** initiative. Read more on the [NIDA Justice System Research Initiatives webpage](#).



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