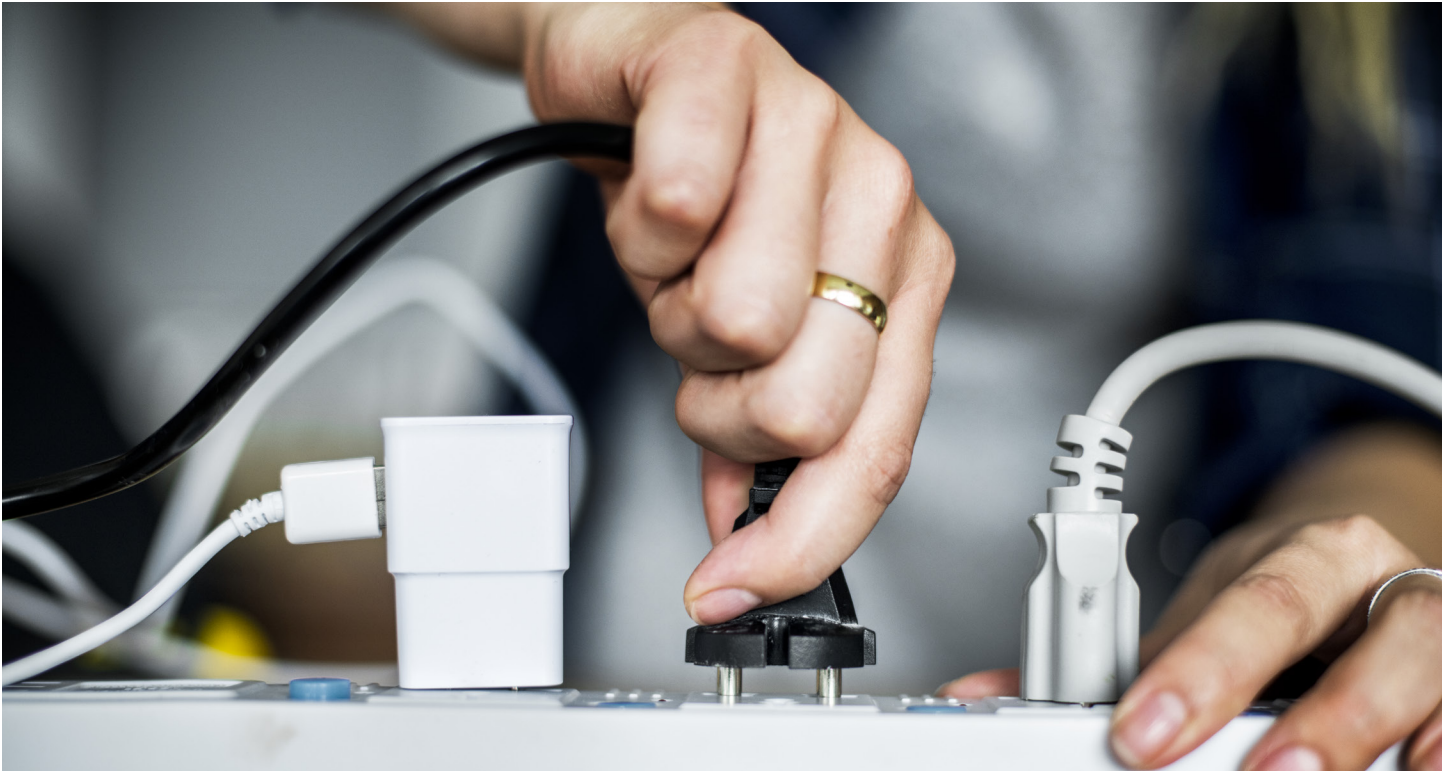




# Medications for Opioid Use Disorder

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The opioid epidemic has ravaged communities across the United States. In two decades, the United States has experienced around 900,000 overdose deaths. In many ways, the so-called opioid epidemic may be better understood as an overdose epidemic. In 2021, there were more than 100,000 overdose deaths nationally. That tally represents the worst year in history. In 2020, Kentucky experienced 1,964 overdose deaths, a 49 percent year-over-year increase. Illicitly (i.e., illegally) made fentanyl and fentanyl analogues are the synthetic opioids driving the third wave of the epidemic. They are involved in 71 percent of overdoses. And research shows that overdose death rates are significantly underreported. That means the real toll of the opioid epidemic is likely much worse than even these figures reveal. Experts have been right to suggest that this is the most dangerous time in history to be a person using illicit drugs, particularly opioids. However, it is worth noting that fentanyl is increasingly found in non-opioids as well, such as methamphetamine and cocaine.

## Preventing Overdose

Fortunately, there are a few evidence-based strategies for preventing overdoses involving opioids. Most of these include public health approaches, such as clean needle access that offers overdose education and easy access to naloxone, a medication that temporarily reverses an opioid overdose. However, many commonly used treatments do not reduce the risk of overdose deaths over time. In fact, there is only one treatment approach that evidence shows prevents overdose deaths. In a recent study, researchers looked at the medical records of 40,000 people who were addicted to opioids and tested six treatment pathways to see which were most effective at preventing overdose: no treatment; treatment with the medications buprenorphine and methadone; treatment with the medication naltrexone; inpatient treatment; intensive outpatient treatment; and non-intensive outpatient treatment. Only medication treatments for opioid use disorder (specifically, treatment with buprenorphine and methadone) prevented overdose deaths.

## Medication for Opioid Use Disorder (MOUD)

The Food and Drug Administration has approved three medications for the treatment of opioid use disorder: methadone, buprenorphine, and naltrexone. MOUD can help people enter into remission and recovery. Remission from opioid use disorder occurs when a person has no more symptoms of opioid use disorder. That means the person no longer uses drugs despite harmful consequences and has no more cravings, among other symptoms. Recovery is defined by the Substance Abuse and Mental Health Services Administration as “a process of change through which individuals improve their health and wellness, live self-directed lives, and strive to reach their full potential.”

One way to understand how MOUD works is to think about the opioid receptor in the brain as an outlet. An opioid is a plug that would fit into the outlet. Full opioid agonists fit directly into the plug. They are the right shape and size. The amount of stimulation for those receptors can be compared to the electrical current that moves through the outlet. As the dose increases, the “current” increases.

### Methadone

Methadone is a full opioid agonist. Using the plug analogy, this means that methadone is like other opioids; it fits directly into the outlet, providing a flow of current. Methadone is a full opioid agonist similar to heroin, but unlike heroin, methadone is also an FDA-approved and regulated drug that is prescribed by physicians and dispensed at standard doses and regular intervals. These conditions render methadone safer to use. Methadone treats withdrawal, decreases cravings, treats pain, reduces infection, reduces crime, and saves lives. Unfortunately, there are tremendous barriers to methadone access, because it is the most tightly controlled and regulated of the three MOUDs. Patients must visit a licensed clinic (opioid treatment program) each day for at least the first 90 days of treatment to receive methadone. After 90 days, a patient could receive limited take-home doses of the medication, but they must attend each visit, including counseling. They must also abstain from all illicit substances, as proven by a urine test.

### Evidence for Methadone

Methadone has been the longest used and most well studied of the medications. Research shows that methadone helps people stay in treatment longer, reduces opioid use, reduces disease transmission, and reduces overdoses, while increasing employment and housing stability.

## Buprenorphine

Buprenorphine is a partial opioid agonist. In terms of the previous plug analogy, taking buprenorphine would be similar to plugging something into an outlet through a surge protector. Buprenorphine stimulates the receptors, but there is a safety mechanism. That mechanism prevents the current from ever getting as high as a full agonist could get, even as the dose of buprenorphine increases. In other words, there is a ceiling on how much current can flow to the receptors with partial agonists.

Because of its enhanced “safety switch,” buprenorphine has some advantages over methadone. It is not as heavily regulated, and a waived provider can prescribe it. The most common type of buprenorphine is Suboxone, which is dispensed at a pharmacy and typically taken once daily. A long-lasting injectable form, a shot given once per month called Sublocade, has recently been developed. Buprenorphine also treats withdrawal, decreases cravings for opioids, treats pain, reduces infections, reduces crime, and saves lives.

Buprenorphine is safe and effective when delivered by a program following evidence-based practices. A person can be on buprenorphine for an extended period of time, potentially a lifetime, just like other medications for chronic conditions. Programs that prescribe the medication based on individual needs rather than using a one-size-fits-all approach (i.e., forcing the tapering of doses, putting a time limit on care, etc.) are most effective.

### Evidence for Buprenorphine

The evidence for buprenorphine is similar to that of methadone. It also reduces drug use, criminal justice involvement, and disease transmission, and it increases employment, housing stability, and quality of life. Importantly, research has shown that both medications reduce risk of overdose death. Both are listed on the World Health Organization’s list of essential medications.

## Naltrexone

Naltrexone, unlike the other two medications, is an opioid antagonist or “blocker.” Using the plug analogy, naltrexone is like a child protection plug cover. With a child protection cover in place, no current flows. It is very hard—but not impossible—for other opioids to bind or plug into the outlet. Importantly, naltrexone can kick off other opioids that are plugged into the outlet (i.e., the opioid receptor). To start treatment on naltrexone safely, you have to wait until the outlet has no opioids binding to it. For someone who is using heroin, oxycodone, or other short-acting opioids, this usually takes seven to 10 days. During this period, the person is losing their tolerance for opioids. That means if they return to using illicit opioids, their risk of overdose is very high. Naltrexone can be taken daily as a pill or as a monthly shot.

## **Evidence for Naltrexone**

Naltrexone is an FDA-approved MOUD, but there is significantly less evidence for it, compared to methadone and buprenorphine, in terms of reducing overdose and death. Because of the way this drug works, it does not treat withdrawal, and it is less effective at treating cravings and relieving pain. In the real world, naltrexone is less effective because it is expensive, and the injection can make people feel rather sick (colloquially referred to as the “Vivotrol flu”).

## **Stigma against MOUD**

Every major public health entity has said that access to these medications is critical to addressing the overdose epidemic. Yet only a minority of people with opioid use disorder, a chronic medical illness, have the opportunity to treat their disorder with these treatments. Research shows that only about one in three people who might benefit from MOUD has access. So why is access to these medications so limited?

There are many pathways to recovery from opioid use disorder, but people often think abstinence from all drugs, including medications, is the only way. People who believe this think using any mind-altering substance is a replacement, not a treatment. Others believe that opioid use disorder, like other substance use disorders, is not a legitimate medical illness involving dysfunction within the brain. This belief continues despite the fact that the U.S. surgeon general released a full report to the contrary. (To view the full report, check online at [www.addiction.surgeongeneral.gov/](http://www.addiction.surgeongeneral.gov/).) Therefore, the public continues to struggle to see FDA-approved medication as a legitimate form of treatment, aimed at helping people go into remission so that they can have the best chance at a meaningful recovery. Imagine trying to survive cancer without access to cancer treatment that is meant to

help put that cancer into remission. Imagine trying to treat bipolar disorder or diabetes without access to psychiatric and diabetic medications. These medication treatments are not curing; they are managing. We cannot cure addiction, but we can help people stay alive and have a chance at the recovery they envision for themselves.

Another source of stigma against buprenorphine is that some patients have been found to share or sell their medication. While diversion of any drug—from antibiotics to opioids—is a public health concern that needs to be addressed, it does not justify withholding the medication from those who have a legitimate medical need. Further, it is important to consider the unique context surrounding buprenorphine diversion: It is the only medication for opioid use disorder that, when diverted, would decrease, rather than increase, overdose deaths.

Research has shown that these unfortunate views about medication treatment for opioid use disorder cause real harm. They create stigma and a caste system in 12-step programs that keeps people on MOUD from feeling supported. They cannot hold positions in their groups (e.g., as sponsors or officers) and are often told they are not “abstinent” if they are on medication. It creates stigma among providers, who are then less likely to prescribe these medications. And it creates self-stigma among patients, which may make them too afraid to ask about them. In short, the stigma against MOUD creates barriers to accessing these life-saving medications.

But it does not have to be this way. Medication treatment and recovery support services need not be at odds with one another. We can have better outcomes for our families, friends, and communities affected by opioid addiction. To do this, we need to want both remission and recovery; we need to stop stigmatizing medication treatments.

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