An opioid is a type of drug that relieves pain by blocking pain signals to the brain. Opioids come in many forms, including pills, patches, powders, and liquids. Also called opiates or narcotics, opioids come in various strengths – from very strong (e.g., morphine, Dilaudid, Duragesic, Oxycontin), to moderately strong (e.g., oxycodone, as in Lortab, Percocet), to strong (e.g., hydrocodone, as in Vicodin) to mild (e.g., codeine, as found in some cough/cold medicines). The street drug heroin is made from morphine and can be injected, snorted, or smoked.

Opioids block the body's perception of pain. For some people, opioids also cause an intensely rewarding 'rush' or sense of extreme happiness. Although opioids can be effective and safe when taken as prescribed, they can be highly addictive. This means that those who take or use opioids can...
Los control, become dependent on them, and use more and more of these substances. For more information, see our fact sheet on Substance Abuse and Addiction [2].

People who inject drugs, whether they inject heroin or another substance, are more likely to get HIV [3], hepatitis C [4] and/or B [5], and other infectious diseases through sharing or reusing needles and other injection drug equipment. The World Health Organization (WHO) reports that about 11 million people inject drugs worldwide, and that 1.4 million of those are living with HIV. Globally, one out of every ten new HIV acquisitions is caused by injection drug use. However, in some areas of Central Asia and Eastern Europe that rate is much higher. About 40 percent of people who inject drugs have hepatitis C, according to the WHO. For more information on safer injection practices, see our fact sheet on Cleaning Equipment for Injecting Drugs [6].

Opioid Substitution Therapy (OST)

Opioid substitution therapy, also called opioid replacement therapy or maintenance therapy, provides opioid drug users with a prescription medicine that replaces their drug of choice (e.g., heroin) and helps them manage their addiction. People usually have to take this medicine in a clinic or other supervised location. The two medicines most often used are methadone and buprenorphine; they are described below.

Studies have shown that opioid substitution therapy programs are effective in reducing drug use, deaths from overdose, and behaviors that lead people to acquire and transmit HIV.

According to the World Health Organization (WHO), studies have shown that OST programs are effective in reducing drug use, deaths from overdose, and behaviors that lead people to acquire and transmit HIV [7]. They also help those living with HIV to take their HIV drugs properly (adhere [8] to their treatment) and stay healthier longer. However, OST is not widespread globally, and is even illegal in some countries.

What Are Methadone and Buprenorphine?

Used at the appropriate dose, methadone is a safe drug that may not have difficult side effects, even if you take it for ten years or more.

If you are addicted to heroin or another opiate, your health care provider may recommend treatment with methadone or buprenorphine. They are both prescription drugs that can help you manage your addiction [2]. It is important to know that both methadone and buprenorphine also lead to physical dependence. That is, your body becomes dependent on your taking them and you could have withdrawal symptoms if you stopped (e.g., anxiety, sweating, chills, rapid heart rate, nausea, vomiting, diarrhea). However, they take away your craving for heroin and do not make you feel high or tired.

Each dose of methadone lasts for about 24 hours, so you will only need to take it once a day. Used at the appropriate dose, methadone is a safe drug that may not have difficult side effects [9], even if you take it for ten years or more. Like any drug, it is possible to take too much methadone or buprenorphine and overdose. Symptoms of overdose for methadone and buprenorphine include slow breathing and heart rates, severe drowsiness, muscle weakness, pinpoint pupils (the black centers of the eyes become extremely small), and cold, clammy skin.

Buprenorphine is available as a tablet that dissolves under the tongue and is used once a day or once every other day, as an injection monthly or weekly, or as an implant. Buprenorphine is less likely than methadone to cause overdose and withdrawal symptoms.
The US Food and Drug Administration (FDA) has approved several brand-name products containing buprenorphine for treatment of opioid dependence: Subutex (buprenorphine), and Suboxone plus Zubsolv (buprenorphine + naloxone). Health Canada has approved Subutex and Suboxone, while the government in the United Kingdom has approved Subutex, Suboxone, and Prefibin (buprenorphine). The World Health Organization’s (WHO) guidelines recommend that health care providers offer substitution therapy for opioid dependence. However, not every country follows these guidelines, and even among those who do, each country’s preferred method for meeting the WHO guidelines differs.

Combined with behavioral therapies, counseling, and other supportive services, methadone or buprenorphine treatment can help you stop using heroin and other opiates, including prescription narcotics such as Lortab, Vicodin, OxyContin, and Percocet. Taking care of a substance abuse problem can greatly increase the success of your HIV treatment.

**Can Anyone Get Methadone or Buprenorphine Treatment?**

Although the WHO’s guidelines for managing opioid dependence suggest that methadone replacement treatment is very effective, access to OST remains challenging in many areas. Methadone and buprenorphine treatment are recognized and available in some countries, yet remain unavailable and illegal in others.

In the US, methadone and buprenorphine are federally controlled drugs. This means, federal requirements along with state laws can influence whether or not methadone and buprenorphine treatments are available in your area.

You cannot get methadone or buprenorphine in every pharmacy, and you may have to go to the clinic to get your medicine. Currently, advocates are pushing for methadone and buprenorphine to be treated like any other prescription medication.

**What Side Effects Are Associated with Methadone and Buprenorphine?**

Methadone's common side effects are constipation, mild drowsiness, leg swelling, and excessive sweating. However, some people on methadone also report having dry mouth, trouble urinating, erectile dysfunction, skin rash, low blood pressure (which can result in feeling tired or dizzy), and nausea. Buprenorphine's side effects include nausea, vomiting, sedation (sleepiness), insomnia (trouble sleeping), drowsiness, and constipation, and may be less intense than methadone's side effects.

Taking too much methadone or buprenorphine can cause an overdose, which can be fatal (cause death). Another drug, naloxone, can help reverse the effects of an overdose. For more information, see the section on Naloxone below.

There are street stories that methadone rots the bones and makes teeth fall out. However, there is no scientific or medical evidence that supports these myths.

**Do HIV Drugs Interact with Methadone or Buprenorphine?**

Methadone and buprenorphine can interact with other medications. Sometimes drug interactions are minor and do not cause any problems. Other times the wrong combination of drugs can cause serious side effects. In addition, any type of liver disease (e.g., hepatitis) may make these interactions worse.

If you are taking opioid treatment and HIV drugs, it is important that you be carefully monitored by
your health care provider. In some cases, methadone and buprenorphine cause the HIV drugs
to become less effective. In some cases, the HIV drugs cause the opioid treatment medicines to
become less effective. It is important to talk to your provider to see if you need to have the dose of
your methadone, buprenorphine, or any of your other medications changed.

Some other drugs used by people living with HIV, such as the antibiotic rifampin (used to treat
tuberculosis [12]) also interact with methadone. Talk to your HIV health care provider or opioid
treatment program associate so they can provide you with the proper medical advice.

If you cannot take methadone because of drug interactions, other treatments may be used:

- Drug therapies such as LAAM (Levo-Alpha Acetyl Methadol), naloxone, and naltrexone
- Detoxification (clearing the body of drugs)
- Behavioral therapies

**OST and Pregnancy**

Methadone treatment may cause changes to your monthly menstrual period, and even stop it. It will
not, however, prevent you from getting pregnant [13] or from having a normal pregnancy [14].

Methadone does cross the placenta (the blood supply to the baby) and your baby may be dependent
on methadone at first and may need to be weaned. Long-term studies have shown that there is no
increased risk of birth defects or developmental difficulties in babies born to methadone-treated
people.

Buprenorphine has not been as well studied in pregnancy as methadone. Studies have shown that
buprenorphine treatment can be easier on the baby without an increased risk of birth defects.
Studies have also shown that the safety and effectiveness of buprenorphine – for mother, fetus, and
newborn – are very similar to that of methadone. The US guidelines recommend that decisions about
taking methadone or buprenorphine while pregnant should take into account the specific needs and
goals of the patient.

If you are on methadone or buprenorphine and become pregnant, it is important that you not stop
your treatment without first speaking to your health care provider.

**Overdose Prevention with Naloxone**

In some areas, community and other organizations offer bystander training to learn when and how to give naloxone to someone who is overdosing.

Naloxone, also known as Narcan, is a drug that is used to prevent overdoses with opioids. It works by
counteracting the effects of opioids. Naloxone can be injected into the muscle, vein, or under the
skin. It can also be given using a nasal spray. Naloxone is not addictive and has no potential for
abuse. Someone who is experiencing an opioid overdose will usually respond to naloxone within five
minutes. However, this medicine wears off within 20 to 90 minutes, so emergency medical care is
still needed.

Traditionally, naloxone has been used by emergency medical personnel in cases of life-threatening
opioid overdose, which is characterized by a severely slowed respiratory rate, pinpoint pupils, and
lack of consciousness. However, bystanders can also use it effectively. Several countries have begun
to provide naloxone to those at risk of opioid overdose or to those likely to witness one (e.g., friends
and family members of those using opioids).

In the US, the American Medical Association supports increased access to naloxone. The US Centers
for Disease Control and Prevention recommend that anyone who is prescribed a high-dose opioid also be prescribed naloxone. In some states, naloxone is available over the counter (without a prescription) at pharmacies. In some areas, community and other organizations offer bystander training to learn when and how to give naloxone to someone who is overdosing.

**Taking Care of Yourself**

Opioid substitution therapy is an important tool for treating addiction to heroin and other opiates, including prescription painkillers. Get the most out of your opioid replacement therapy and your HIV drugs by keeping your health care provider informed of all the drugs you are taking, so any necessary dose adjustments can be made.

The Well Project is a non-profit organization whose mission is to change the course of the HIV/AIDS pandemic through a unique and comprehensive focus on women and girls. We are a recognized leader in the fight against HIV, revolutionizing the availability and accessibility of meaningful and relevant information designed specifically for women and girls living with HIV. The Well Project does not control, promote, distribute, endorse or market prescribed substances associated with the treatment of HIV/AIDS or related diseases and should in no way take precedence over the qualified assessment and diagnosis of a medical professional or certified physician/doctor. The information contained on this website is for educational purposes only.

**Tags:**

- [Heroin](#) [15]
- [methadone](#) [16]
- [methadone and HIV](#) [17]
- [drug interactions](#) [18]
- [side effects](#) [19]
- [methadone and pregnancy](#) [20]
- [drug addiction](#) [21]
- [heroin addiction](#) [22]

**Additional Resources**

Select the links below for additional material related to opioid addiction.

- [National Harm Reduction Coalition (United States)](#) [23]
- [Buprenorphine (US Substance Abuse and Mental Health Services Administration)](#) [25]
- [HIV and People Who Use Drugs (Be in the Know, by Avert)](#) [26]
- [Why Overdose Matters for HIV (Open Society Foundations, also available in Russian and Mandarin Chinese)](#) [27]
- [Opioid Overdose (World Health Organization)](#) [28]
- [Opioid Overdose Basics: Understanding Naloxone (National Harm Reduction Coalition, US)](#) [29]
- [Opioid Treatment Program Directory (US Substance Abuse and Mental Health Services Administration)](#) [30]
- [Opioids: How to Stay Safe and Alive (Turn It Up! Staying Strong Inside, PDF)](#) [31]
- [How to Find Buprenorphine Treatment (The National Alliance of Advocates for Buprenorphine Treatment, US)](#) [32]
- [Substitution: Travel Guide Index (INDRO e.V.)](#) [33]
- [Opioid Substitution Treatment Increases Chances that People Who Inject Drugs Will Have Good Facebook](#)
Adherence to HIV Therapy (aidsmap) [34]
CDC Warns Against Opioid Substitute Kratom (Nature World News) [35]
Find Treatment (US Substance Abuse and Mental Health Services Administration) [36]
Medications for Opioid Use Disorder and HIV Prevention Go Hand in Hand (Pharmacy Times) [37]
Can Substance Use Treatment Improve HIV Care? (POZ) [38]
Opioid Replacement Therapy (International Association of Providers of AIDS Care) [39]