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One tool in the fight against the opioid overdose crisis is **naloxone**, a medication that reverses the respiratory depression caused by opioids.

## EXPLAINER

# What You Need to Know About Naloxone

April 2023

## Introduction

In 2021, more than **80,000 Americans** died of an opioid overdose. One tool in the fight against this crisis is **naloxone**, a medication that reverses the respiratory depression caused by opioids. In a given year in the United States, the drug saves **thousands** of lives and **activists argue** that ensuring convenient, affordable, stigma-free access to naloxone is an essential part of any attempt to end the U.S. overdose crisis. Here's what you need to know about this life-saving medication.

## What is naloxone?

Naloxone is an **opioid antagonist**, meaning it binds to opioid receptors in the brain but does not activate them. This attachment pushes intoxicating opioids such as heroin, fentanyl and oxycodone off the receptors, resulting in a rapid reversal of respiratory depression and other overdose symptoms.

In the United States, naloxone is available in **three** U.S. Food and Drug Administration (FDA)-approved forms: injectable, auto-injector and nasal spray. Although most naloxone products are currently prescription, most states have **laws** that improve pharmacy-based access, such as providing statewide standing orders or allowing pharmacists to prescribe the medication.

## Is naloxone safe?

Naloxone is considered safe, and allergies or other serious adverse responses to the drug are **rare**. The most common undesired effect of naloxone is **withdrawal**, which can include headaches, sweating, nausea, vomiting, increased heart rate and changes in blood pressure. However, this is uncommon if appropriate doses of the medication are administered, and while unpleasant, is **less risky** than the overdose itself. In fact, naloxone is considered so safe that harm reduction organizations have been distributing the medication to people who use drugs and members of their social networks since **1996**, and the **FDA recently granted** the intranasal product, Narcan, **over-the-counter** status.

## Can people get high from naloxone?

No. Although naloxone binds to opioid receptors in the brain and moves competitors off of those receptors, it does not “activate” the receptors. This means that the medication reverses the effects of other opioids, but has no euphoric or respiratory effects of its own. As such, it is a benign medication **without** recreational appeal or the potential for abuse.

## Does naloxone reverse all overdoses?

No, naloxone only reverses the effects of opioids. As such, when **non-opioids**—such as benzodiazepines, stimulants, alcohol or other substances—are suspected or known



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## Where can I learn more?

### What to do if you witness an overdose



Identifying an opioid overdose



Responding to an opioid overdose



Administering intranasal naloxone

### How to access naloxone



State laws about accessing naloxone at the pharmacy



Programs that ship naloxone



Finding naloxone in your community

## Contact us

For more information, please contact:

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to be involved in an overdose, naloxone may not be sufficient to restore normal functioning. Therefore, experts [recommend](#) administering the medication during an overdose, even if non-opioid drugs are involved, and seeking follow-up medical care.

Multidrug-involved overdoses are of growing concern for several reasons: Fentanyl is increasingly found in a variety of illicit drugs including [stimulants](#) and counterfeit prescription [pills](#); rates of intentional and unintentional [polysubstance use](#) are rising; and different drugs such as [xylazine](#) (tranq) are emerging as contaminants in the black market supply.

## Is fentanyl naloxone-resistant?

No. Fentanyl and its analogs are synthetic opioids, so naloxone does reverse their effects. However, because many of these drugs are substantially more potent than morphine or heroin, they may require multiple or [higher-dose applications](#) of the medication to achieve and sustain improvements in respiratory function effectively. In addition, fentanyl (especially in high doses) may increase risk for complications—such as [airway obstructions](#)—that can require a more complex overdose response in addition to naloxone.

## Does naloxone encourage riskier drug use?

No. Despite fears among critics that access to an overdose reversal medication will encourage people to engage in riskier behavior, evidence does not support this. In general, research [suggests](#) that people do not substantially change their drug using behaviors after receiving take-home doses of [naloxone](#). In fact, some people who use opioids report [a desire to avoid](#) the uncomfortable withdrawal effects that naloxone can cause, which factors into their efforts to prevent overdose in the first place.

## Who should carry naloxone?

The vast majority of overdoses are reversed by [people who use drugs](#), as well as non-using [friends and family members](#) of the person experiencing the overdose. These individuals act as first responders in place of or prior to emergency medical services. As such, anybody whose social network or role in the community puts them in contact with a person at risk for overdose—including individuals taking high-dose prescription opioids and anybody who consumes drugs purchased on the illicit market—should carry naloxone and know how to use it. People who use drugs can often access the medication for free through community-based organizations such as syringe service programs. In addition, family members of at-risk individuals may receive it through support groups, and in most states, people can purchase naloxone from their pharmacist. As naloxone becomes available over-the-counter, it should be even easier to access at a local pharmacy, and so long as there is a stable supply of the medication available, there is no harm in members of the general public carrying the drug out of an abundance of caution.