


# Naloxone (Narcan) Nasal Spray



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What Is Naloxone (Narcan)?

How Does Naloxone Work?

Overdose Deaths

How to Give Narcan

9 min read

## What Is Naloxone (Narcan)?

**Naloxone** – also known as Narcan – is a medication that can reverse the effects of an **opioid** overdose. This includes **heroin**, fentanyl, and some types of painkillers. Paramedics and emergency room doctors have used it for years to save lives.

In some states, if you, a family member, or a friend are addicted to heroin or opioid painkiller, you can carry naloxone. A pocket-size device that contains an injectable form of naloxone is available. A nasal spray version has also been approved for use and requires no special training to administer.

### What’s in Narcan?

Naloxone hydrochloride, the active ingredient in Narcan, belongs to a class of drugs called opioid antagonists. An antagonist is a drug that stops the action or effect of another drug.

It also has inactive ingredients such as benzalkonium chloride (a preservative), disodium ethylenediaminetetraacetate (a stabilizer), sodium chloride, and hydrochloric acid to balance the pH.

## How Does Naloxone Work?

Naloxone blocks the effects of drugs made from opium, or opioids. These include:

- Heroin
- Morphine
- Oxycodone
- Methadone
- Fentanyl
- Hydrocodone
- Codeine
- Hydromorphone
- Buprenorphine

Opioids work by turning on an area of nerve cells in your brain and body called opioid receptors that block pain signals. Narcan attaches to those receptors so that opioids can’t. It also kicks out any opioids already bound to receptors.

Opioids slow your breathing. If you take too much of one, your breathing may stop and you could die. If given soon enough, naloxone can counter the overdose effects, usually within minutes. [Learn more about overdose recovery.](#)

### How is naloxone given?

You can give someone Narcan in two ways: Narcan nasal spray or a Narcan injection.

The nasal spray comes in a prepackaged spray you don’t have to put together. You spray it into a nostril to give the drug.

The injection uses a needle that goes into muscle, but you can also inject it into a vein or under the skin. It’s often given in the outer thigh muscle, through clothes if needed. Zimhi is an FDA-approved single-dose, prefilled syringe that has the correct dosage already loaded into the injector.

Naloxone injection is also used after surgery to reverse effects of opiates given during surgery. It’s also given to newborns to decrease the effects of opiates given to their mothers before delivery.

This injection is in the class of meds called opiate antagonists. It blocks effects of opiates, and decreases harmful symptoms caused by high levels of opiates in your blood.

### Narcan dose

The only way to get Narcan is by prescription. Follow your doctor's orders or the directions on the label. The following information includes information about the dose of Narcan nasal spray.

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Spray the contents of the injector into one nostril. This equals about 4 milligrams of the drug.

**Injection:** Narcan injection doses depend on various factors, such as why the drug is being given. For reversing an overdose, pre-filled injectors contain 5 milligrams of the drug. This may not reverse the effects of certain opiates, and additional doses may be required in some cases. Follow printed instructions on the injector’s label. Don’t use it if the medicine looks cloudy or has large particles in it.

Safety Exit

Narcan isn’t a substitute for medical treatment. After giving it to someone, call 911 right away, even if the person seems better.

### Overdose Deaths

Almost 107,941 people died of drug overdoses in the U.S. in 2022, a 7.5-fold increase since 2015. Synthetic opioids (such as fentanyl), many of which are mixed with other drugs including methadone, heroin, and cocaine, are the main drivers of these deaths.

Heroin use is also growing in the U.S. The 2021 National Survey on Drug Use and Health reported that about 1.1 million Americans use the illegal substance. Around 9,173 people died from an overdose involving it.

The rise in heroin use is believed to be linked to [prescription drug misuse](#). Many people who misuse painkillers switch to heroin for two reasons: It is cheaper and often easier to get.

Because of naloxone’s effectiveness, the White House drug policy office now urges first responders, such as police and firefighters, to carry it.

### How to Give Narcan

A person who has overdosed may:

- Be breathing very slow or not breathing
- Have blue or purplish lips or fingernails
- Be limp
- Be [vomiting](#) or gurgling
- Not wake up or respond if you try to rouse them

If a person shows signs of an overdose:

1. Call 911 right away.
2. Begin rescue breathing, if the person isn’t taking in air.
3. Give the person naloxone.

Naloxone wears off in about an hour. A person who has overdosed may stop breathing then and need another dose. It's important to call 911 and stay with the person until help arrives. They may need more doses of naloxone or other emergency care.

Narcan is a very safe medicine. The CDC calls naloxone “lifesaving” and says it’s “always best to use it if you think someone is overdosing.”

#### Nasal spray

You give the nasal spray form of naloxone to someone in a lying down position.

1. Call 911.
2. Open the package.
3. Hold the nasal spray with your thumb on the plunger.
4. Tilt the person’s head back.
5. Put the tip of the spray device in one of their nostrils.
6. Firmly press the plunger until all the spray comes out.
7. Wait 2-3 minutes and if they don’t respond, open another spray and give them a second dose.

Get medical help as quickly as possible after treating someone with the nasal spray.

### Naloxone Side Effects

Naloxone can save lives. However, using it to save someone’s life still comes with side effects, and they’ll still need emergency help.

Although naloxone reverses opioid overdose in the body, it lasts for only 30 to 90 minutes. Many opioids remain in the body longer than that. It’s possible to continue having effects of an overdose after a dose of naloxone wears off.

People who are given naloxone should be observed constantly until emergency care arrives. They should be monitored for another 2 hours after the last dose of naloxone is given to make sure breathing does not slow or stop.

Naloxone itself can also cause:

- [Chest pain](#)
- [Seizures](#)
- Symptoms of an [allergic reaction](#), such as:
  - Hives

• [Trouble breathing](#)

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Naloxone puts a person into withdrawal. They may:

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- Shake fiercely

- Have a headache
- Have changes blood pressure
- Have a rapid heart rate

They may also have pain and burning on the skin where they got the shot, or in their hands and feet. These effects can happen within minutes of giving them naloxone.

Withdrawal side effects are uncomfortable but not life-threatening. The risk of death from an overdose is far higher than the risks of a bad reaction to naloxone. Naloxone side effects are also extremely rare.

## Where to Buy Narcan

There are many ways to get Narcan, including your local pharmacy and organizations committed to reducing drug overdose in communities.

### Can you buy Narcan over the counter?

Narcan is available in all 50 states. You can find naloxone at most pharmacies. Some states allow you to buy it off the shelf without a prescription.

### Narcan kits

A Narcan kit is a portable pouch that has everything you need in the event you need to give someone a dose. Some harm reduction organizations put these kits together to give out to the community. In addition to one or two doses of the drug, it may also have alcohol pads, rescue breathing masks, rubber gloves, prescription cards, or an educational insert.

### Narcan cost

The cost of Narcan will depend on where and how you get it as well as what type you get. Check with your insurance company to see if they cover it. If you don’t have insurance, check the cost at your local pharmacies.

The retail cost for the nasal spray is about \$142, but it’s rare you’d have to pay that whole cost. You can find drug assistant programs or prescription coupons to help reduce the cost.

### Free Narcan

Many community-based distribution programs, local public health groups, or local health departments carry naloxone at no cost. Some drug companies also have cost assistance programs that can help you pay for it or get it for no cost.

## Narcan Training

There are many places where you can learn how to administer Narcan, including the American Red Cross (online). Your state may also offer classes. These classes teach you how to recognize someone is overdosing and how to safely give them Narcan.

Having naloxone on hand is the same as having an epinephrine auto-injector (EpiPen) for someone with life-threatening allergies. It gives you an extra layer of protection in case of an emergency situation.

If you know someone who uses opioids, especially if they have opioid use disorder, you should carry naloxone. You should also carry it if you use opioids yourself. This includes high-dose opioid medications prescribed by a doctor. Since you can’t use naloxone on yourself, be sure people know you have it in case of an overdose.

## Access to Naloxone

Critics have opposed public access to naloxone, saying it would encourage abuse of heroin and other opioids, but no studies support that. The medical community widely supports making naloxone more easily available because it saves lives.

In more than half the U.S. and Washington, DC, Good Samaritan laws protect a person who helps someone during an overdose.

## Takeaways

Naloxone (Narcan) is a medicine that can reverse an opioid overdose by blocking the drug’s effects for 30 to 90 minutes. It comes as a nasal spray or injection you can get over the counter or by prescription at most pharmacies. Anyone who is or knows someone at risk for opioid overdose should carry the drug.

## Narcan FAQs

### Does Narcan work for fentanyl?

Yes, it works for any drug made from opium (opioids). Fentanyl is an opioid.

### What does Narcan do exactly?

Naloxone reverses the effects of opioids by blocking the receptors in the brain to which opioids attach. They can also detach opioids already connected to receptors and take their place.

### Does the store Walgreens sell Narcan over the counter?

Yes, you can find naloxone nasal spray at many Walgreens in-store. Check your local store’s stock on the Walgreens website.

Does Narcan work for benzodiazepine?

When someone has taken opioids and shows signs of overdose, you should give them Narcan. These signs include: unresponsiveness, slow breathing, pinpoint (constricted) pupils, blue fingernails or lips, vomiting, or gurgling noises.

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Narcan only works to reverse the effects of opioids.

### What is the use of naloxone?

Naloxone is very safe, and side effects are rare. In some cases, you can have chest pain, seizures, or symptoms of an allergic reaction such as swelling in your mouth.

Why prescribe naloxone?

When doctors prescribe naloxone, it reduces emergency room visits. When people with loved ones at high risk of opioid overdose or people who use opioids have access to naloxone, it reduces death from drug overdose.

What happens after taking naloxone?

After you take naloxone, you may start having opioid withdrawal symptoms within 1 or 2 minutes. These include headaches, changes in blood pressure, rapid heart rate, sweating, nausea, vomiting, and tremors. These effects can be uncomfortable, but they are not life-threatening.

What are the negative effects of naloxone?

If you have a physical dependence on opioids, you can have withdrawal symptoms within minutes after taking naloxone. Your withdrawal symptoms may include headaches, changes in your blood pressure, rapid heart rate, sweating, nausea, vomiting, and tremors. These symptoms are unpleasant but not life threatening. Your risk of death overdosing on opioids is worse than your risk of a bad reaction to naloxone.

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