

# Naloxone Training

Your Safety and anonymity is  
our top priority.





**NaloxAnon**

[www.naloxanon.ca](http://www.naloxanon.ca)

## Training Objectives

- 1. Understanding Overdose & Recognition of Opioid Overdose Signs:** Identify the signs and symptoms of opioid overdose, such as respiratory depression, pinpoint pupils, and loss of consciousness.
- 2. Understanding Naloxone Administration:**
  - Understand the proper administration techniques for different naloxone products, including nasal spray and injectable forms.
  - Familiarize oneself with the "Good Samaritan" protection law, which provides legal protection to individuals who administer naloxone in good faith to someone experiencing an overdose.
- 3. Understanding What Not to Do During an Overdose:** Describe the actions that should not be taken during an opioid overdose, such as inducing vomiting, administering substances other than naloxone, or physically harming the individual.
- 4. Knowledge of Steps to Follow During an Overdose:** Know the steps to follow when encountering an opioid overdose, including calling emergency services, administering naloxone if available, providing rescue breathing or chest compressions, and placing the person in the recovery position.

# Overdose

An overdose occurs when an individual ingests a quantity of a drug, or a combination of drugs, that exceeds what their body can metabolize or eliminate safely. This excessive amount can overwhelm the body's physiological processes, leading to potentially life-threatening consequences.

## 1. Cause of Overdose:

- An overdose is typically caused by consuming too much of a substance, whether it's prescription medication, over-the-counter drugs, illicit drugs, or alcohol.
- It can also occur due to interactions between drugs or due to taking a drug with increased potency, not knowing its strength, or when the body's tolerance to the drug has decreased.

## 2. Effects on the Central Nervous System (CNS):

- The central nervous system, which includes the brain and spinal cord, controls vital functions of the body. An overdose can depress or stimulate the CNS beyond its normal range of activity.
- In the case of CNS depressants, like opioids, an overdose may reduce the respiratory rate to dangerously low levels, cause a drop in body temperature, and lead to unconsciousness. Conversely, stimulants might lead to seizures or cardiac arrest.

## 3. Risk of Overdose:

- Anyone can overdose, regardless of whether they are new to taking drugs or have a history of drug use. Variations in individual tolerance, health conditions, and the presence of other substances in the body can influence the risk.
- Overdose risk is not solely based on experience or frequency of use; it can happen with a single use or after many instances of use.

## What are opioids?

Opioids are a class of drugs that are known for their potent pain-relieving properties. They work by binding to specific receptors in the brain and nervous system, known as opioid receptors, to reduce the perception of pain. These drugs can be derived from the opium poppy plant or synthesized in a laboratory. Here's a breakdown of the information about opioids:

### Examples of Opioids:

1. **Codeine:** Often found in prescription-strength cough syrups or combined with other medications like acetaminophen (Tylenol #1, #2, #3) to relieve pain.
2. **Oxycodone:** A potent opioid found in medications like Percocet and OxyNEO, prescribed for pain relief.
3. **Hydromorphone (Dilaudid):** A stronger opioid used to treat moderate to severe pain, known for its quick onset of action.
4. **Meperidine (Demerol):** An older synthetic opioid that's used less frequently today due to its side effects, but it is still used for acute pain management in some cases.
5. **Methadone:** A long-acting opioid that is used both for chronic pain management and in medication-assisted therapy (MAT) for opioid use disorder.
6. **Fentanyl (and analogues):** An extremely potent synthetic opioid, often used in medical settings for severe pain management, but also found illicitly manufactured, which increases its potential for overdose.
7. **Heroin:** An illegal opioid, known for its high potential for addiction and is often used recreationally.

The therapeutic use of opioids is a double-edged sword; while they are effective for pain management, their misuse can lead to significant harm.

## Signs & Symptoms of Overdose

An opioid overdose can be a life-threatening emergency. Recognizing the signs and symptoms promptly can save lives. Here are some common signs and symptoms to be aware of:



**Skin feels cold  
& clammy**



**Fingernails or lips  
are blue, purple,  
or grey**



**Body is very limp**



**Can't wake the  
person up**



**Deep snoring or  
gurgling sounds**



**Breathing is slow,  
erratic or has  
stopped**




**Pupils are very  
small**

# Responding to an opioid overdose

## 5 steps to respond

STEP <b>1</b>		<b>SHOUT &amp; SHAKE</b> their name      their shoulders
STEP <b>2</b>		<b>CALL 9-1-1</b> If unresponsive.
STEP <b>3</b>		<b>GIVE NALOXONE</b> 1 spray into nostril or inject 1 vial or ampoule into arm or leg.
STEP <b>4</b>		<b>PERFORM RESCUE BREATHING AND/OR CHEST COMPRESSIONS</b>
STEP <b>5</b>		<b>IS IT WORKING?</b> If <b>no</b> improvement after 2-3 minutes, repeat steps 3 & 4. <b>Stay with them.</b>

**RECOVERY POSITION** If the person begins breathing on their own, or if you have to leave them alone, put them in the recovery position.



head should be tilted back slightly ..... to open airway

hand supports head ..... knee stops body from rolling onto stomach

### SIGNS OF OPIOID OVERDOSE

- Person can't be woken up
- Breathing is slow or has stopped
- Snoring or gurgling sounds
- Fingernails and lips turn blue or purple
- Pupils are tiny or eyes are rolled back
- Body is limp

## Step 1: Shout & Shake



### Shout

- 1. Call out to the person loudly:** Use a firm, loud voice to try to wake them. Shout their name if you know it, or use general prompts like, “Hey, can you hear me?” or “Are you okay?”
- 2. Make noise:** Clap your hands or make other loud noises that might wake the person if they are asleep.

### Shake

- 1. Announce your actions:** Before you physically touch them, say something like, “Hi, I’m going to shake your shoulders to make sure you’re okay.” This is important in case the person is not fully unresponsive but might be disoriented or impaired.
- 2. Gentle but firm physical stimulation:** Shake their shoulders firmly. If there is no response, try other methods to provoke a reaction:
  - ❖ **Rub the sternum:** Use your knuckles to rub up and down on the person’s chest bone.
  - ❖ **Under the nose stimulation:** With your knuckles, rub firmly under the person’s nose.
  - ❖ **Pinch the earlobe:** Gently pinch the earlobe to see if they react to the pain stimulus.

### Assess Responsiveness

- If the person responds, assess their condition and determine if they need medical assistance. Do not leave them alone.
- If the person does not respond to Step 1, proceed to Step 2, calling 911.

## Step 2 – Call 911

- 1.Dial 911:** As soon as you've established the person is unresponsive, immediately call 911 or your local emergency number.
- 2.Specify the emergency:** Tell the dispatcher that there is an unconscious person who is not responding. Stay focused on the facts and avoid speculation.
- 3.Listen to the dispatcher:** Follow the dispatcher's instructions carefully. They may give you important steps to take before help arrives.
- 4.Provide a precise location:** Give the dispatcher your exact location. Use an address, cross streets, or notable landmarks to ensure emergency services can find you quickly.
- 5.Stay calm:** Speak clearly and calmly. Panicking can lead to miscommunication and delay the emergency response.

### While Waiting for Help

- Keep the phone line open if the dispatcher asks you to, and put it on speaker if necessary so you can use your hands.
- If you have naloxone available, prepare to administer it as soon as you hang up, or as instructed by the dispatcher.
- If there's someone else with you, have them wait outside to flag down the emergency responders, making it easier for them to find you quickly.

### When Help Arrives

- Inform the first responders about any substances the person may have taken, if you know.
- Let them know if you've administered naloxone and any response to it.

### Remember

- Your actions in these moments are critical. An opioid overdose is a life-threatening emergency, and every second counts.
- Remain on the scene until help arrives, as you may be able to provide valuable information or assistance.
- Do not hang up until the dispatcher says it is okay to do so. They may provide you with additional instructions or support until emergency services arrive.

## Good Samaritan Drug Overdose Act

Many people who use drugs have had bad experiences in hospitals and emergency departments and may be reluctant to seek medical care. In 2017, the Good Samaritan Drug Overdose Act was introduced.

**See an overdose? Call 911 immediately.**

Under Canada's *Good Samaritan Drug Overdose Act*, if you seek medical help for yourself or for someone else who has overdosed, neither of you will be charged for possessing or using drugs, nor will anyone else at the scene.

See the other side of this card to know exactly when the Good Samaritan law will and won't protect you against charges.

**Police may not always know about the law's protections.**

If you need legal help, call

**1 (800) 668-8258 (toll-free) for Legal Aid Ontario or**

**1 (855) 947-5255 (toll-free) for Law Society Referral Service,**

**also online at <https://lsrs.lsuc.on.ca/lsrs>.**

## Step 3 – Give naloxone

Naloxone is a non-addictive, non-psychoactive drug that blocks the effects of opioids on the body. It temporarily reverses the effect of an opioid overdose. There are some important points to know about Naloxone:

- **Temporary Effect:** Naloxone only temporarily reverses the effects of an overdose, which gives enough time for medical help to arrive but requires that medical attention be sought immediately.
- **Safe to Administer:** If naloxone is administered to a person who has not taken opioids, it will not have a harmful effect, making it safe to use if an opioid overdose is suspected.
- **Widespread Use by EMS:** Emergency Medical Services have been using naloxone for decades to counteract the life-threatening depression of the central nervous system and respiratory system caused by an overdose.
- **Immediate Action:** Naloxone typically works within 5 minutes, which is crucial in an overdose situation where every second counts.
- **Short Duration:** The effects of naloxone are not long-lasting, usually wearing off within 30 to 45 minutes, which is why ongoing medical attention is critical.
- **Available Forms:** In Ontario, naloxone is available as a nasal spray and as an injectable solution, making it accessible for non-medical bystanders to administer.
- **Training:** While naloxone is easy to use, proper training on how to administer it can enhance its effectiveness and ensure that it is given safely.

It's important to note that because naloxone's duration of action is shorter than that of many opioids, an individual who has been revived with naloxone can slip back into overdose once the naloxone wears off. This is why medical help is still urgently needed even after naloxone is given. Additionally, due to the risk of withdrawal symptoms, a person who has been administered naloxone should be monitored until emergency services arrive.

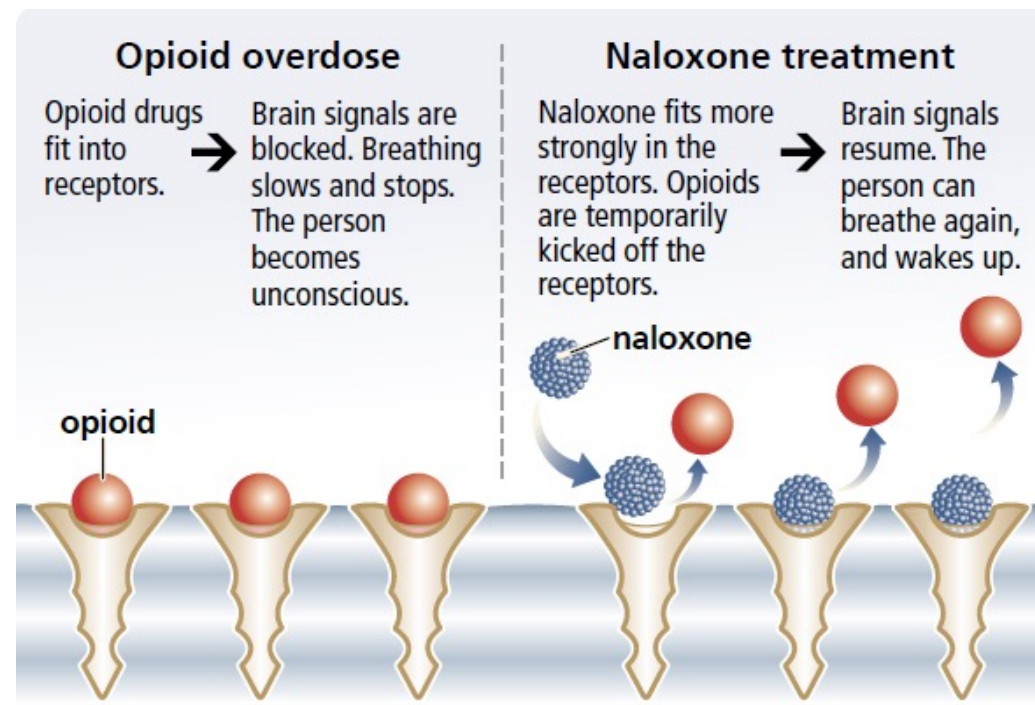
## How Does Naloxone Work?

Naloxone is an opioid antagonist that works by blocking the brain's uptake of opioids, effectively replacing them. It does not treat overdoses of non-opioid medications and has no effect on individuals who have not taken opioids.

Naloxone quickly reverses an overdose by blocking the effects of opioids and can restore normal breathing within 2 to 3 minutes in a person whose breath has slowed or stopped due to opioid overdose. It competes with the opioids the person used for the same receptor sites, replacing the opioids and reversing the overdose effects.

Naloxone only works on overdoses caused by opioids, including heroin, fentanyl, and prescription opioid medications. It will not reverse overdoses from non-opioid drugs like cocaine, benzodiazepines, or alcohol.

Naloxone can be administered in three ways: intramuscularly, intranasally, and intravenously. It is available in prefilled nasal spray and injectable forms, both of which are safe, effective, and can help save a life.



## Nasal spray naloxone

Naloxone nasal spray is a prefilled, needle-free device that requires no assembly and is sprayed into one nostril while the person lays on their back. This device can also be easier for loved ones and bystanders without formal training to use.



## Contents of nasal naloxone kit

- 2 doses of nasal spray naloxone (inside a sealed package)
- 1 pair of non-latex gloves
- 1 breathing barrier
- 1 bilingual instructional insert
- 2 identifier cards (1 English & 1 French) showing that the person has received training in naloxone use, and the expiry date of the naloxone

## How to administer nasal naloxone

Lay the person on their back, wipe the nose clear if necessary and keep the head tilted backwards slightly with one hand.

### PEEL



Peel back the package to remove the device. Hold the device with your thumb on the bottom of the plunger and 2 fingers on the nozzle.

### PLACE



Place and hold the tip of the nozzle in either nostril until your fingers touch the bottom of the patient's nose.

### PRESS



Press the plunger firmly to release the dose into the patient's nose.

Do not touch the plunger until the device is in the person's nostril, otherwise you may accidentally trigger the spray.

## Injectable naloxone



## Contents of injectable naloxone kit

- 2 ampoules of naloxone
- 2 ampoule snappers – these help open the ampoules safely
- 2 syringes
- 2 alcohol swabs
- 1 pair of non-latex gloves
- 1 breathing barrier
- 1 bilingual instructional insert
- 2 identifier cards (1 English & 1 French)

## How to administer injectable naloxone

**1. Grasp the Ampoule:** Hold the top (narrow end) of the ampoule between your thumb and forefinger. You can use the supplied snapper or alcohol pads to help with grip if needed. Swirl or tap the ampoule to ensure the liquid settles at the bottom.

**2. Snap the Ampoule:** Still holding the top of the ampoule, grasp the bottom end with your other hand and snap the ampoule away from you.

**3. Prepare the Syringe:** Remove a syringe from its packaging and remove the protective plastic cap from the needle. Insert the needle into the naloxone ampoule and pull up the plunger to draw the naloxone into the syringe.

**4. Remove Air Bubbles:** Turn the syringe so the needle is pointing upward and tap it to move any air bubbles to the top. Slowly push the plunger to expel the air bubbles. A small amount of air is not harmful.

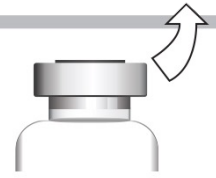
**5. Inject the Naloxone:** Insert the needle at a 90-degree angle into the large muscle of the thigh or upper arm. You can inject through clothing if necessary. Push down on the plunger until all of the naloxone is injected.

**6. Dispose of Materials:** Dispose of the needle and ampoule in a plastic, puncture-proof container such as a sharps container or a securely sealed water bottle.

**7. Note the Time:** Keep track of the time when the naloxone was administered, either by noting it or setting a timer on your phone. This information will be helpful for determining if another dose is needed.

Source: Family Health Centers of San Diego's

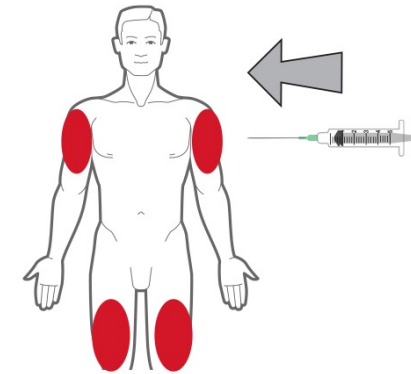
**1** Remove cap from naloxone vial and uncover the needle.



**2** Insert needle through rubber plug with vial upside down. Pull back on plunger and take up 1 ml.



**3** Inject 1 ml of naloxone into an upper arm or thigh muscle.



**4** If no reaction in 3 minutes, give second dose.

## Heavy nod versus overdose

Distinguishing between heavy nodding (a state of extreme drowsiness or sedation commonly associated with opioid use) and an opioid overdose can be critical in providing appropriate assistance. Here's a guide to help differentiate between the two:

**1. Assessment of Breathing:** The primary concern in opioid overdose is respiratory depression, where breathing becomes dangerously slow or shallow, leading to oxygen deprivation. If you encounter someone who appears excessively drowsy or unresponsive, it's crucial to assess their breathing.

**2. Breathing Check:** Follow these steps to assess breathing:

- Observe the person's chest and/or stomach to see if it is rising and falling, indicating normal breathing.
- Place the back of your hand over their mouth to feel for breath.
- Hold the glass screen of your mobile phone over their mouth to see if it fogs up, indicating exhalation.

**3. Response to Stimulation:** While a person in a heavy nod may not respond readily to shouting and shaking, they may still exhibit normal breathing. Lack of response to stimulation alone does not necessarily indicate an overdose if breathing is adequate.

**4. Action Based on Breathing Status:**

- If the person is breathing normally, you can place them in the recovery position to keep their airway clear and prevent choking if vomiting occurs.
- Continuously monitor the individual until they become more alert.

## Recovery position

The recovery position is a crucial maneuver to help maintain an open airway and prevent choking in individuals who are unconscious or unable to maintain their own airway due to intoxication or medical conditions. Here are the steps to correctly position someone in the recovery position:



- 1**
- Lay the person down on their back with their legs stretched out.
  - Kneel down beside them.
  - Place the arm nearest to you on the floor next to their head in a bent position with their palm facing up.



- 2**
- By taking the person's hand that is furthest away from you, pull their arm across their chest.
  - Guide the back of their hand to their face so that it rests against the cheek closest to you. Hold it in place with one of your hands.



- 3**
- Use your other hand to take hold of the thigh that is furthest away from you (for instance by touching their trousers – not at their knee joint).
  - Pull the leg up so the knee is bent and the foot is on the ground.
  - Gently roll their entire body towards you.



- 4**
- The leg you pulled up should now rest on the ground in front of them, with the thigh at a right angle to their body.
  - Gently tilt their head back a little and open their mouth slightly to make it easier for them to breathe.
  - Keep their hand placed next to their head between their chin and the ground to stabilize the position of their head.

## RESCUE BREATHS



©ERC

- Pinch the nose
- Take a normal breath
- Place lips over mouth
- Blow until the chest rises
- Take about 1 second
- Allow chest to fall
- Repeat

## Step 4 – Perform rescue breathing and / or chest compressions

### COMPRESSIONS

Push at least 2 inches on adult breastbone, 100 times per minute, to move oxygenated blood to vital organs



### AIRWAY

Open the airway and check for breathing or blockage; watch for rise of chest and listen for air movement



### BREATHING

Tilt chin back for the unobstructed passing of air; give two breaths and resume chest compressions



## If naloxone is NOT working

here are several reasons why a person may not respond to naloxone:

**1. Not Under the Influence of Opioids:** If the person's symptoms are not caused by opioids, naloxone will not have any effect on them. It's essential to consider other possible causes of their condition.

**2. Underlying Medical Issue:** The person may have another serious medical issue causing their symptoms, such as a heart attack, stroke, or seizure. In such cases, naloxone will not address the underlying problem, and appropriate medical interventions are necessary.

**3. Higher Dose Needed:** In some cases of opioid overdose, particularly with potent opioids like fentanyl, a higher dose of naloxone may be needed to effectively reverse the overdose. If the initial dose does not produce a response, administering a higher dose may be necessary. For example, some fentanyl analogues are more potent and may require multiple doses of naloxone to reverse the overdose. These analogues can be resistant to naloxone's effects, necessitating additional doses for reversal.

It's important to remember that naloxone is not a cure-all and may not be effective in all situations. Regardless of naloxone administration, it's critical to seek emergency medical assistance by calling 911.

## After an overdose

After the administration of naloxone following an overdose, it's important to be aware of how the individual may respond as the medication takes effect. Here are some potential reactions and important points to communicate:

**1.Waking Up:** The individual may regain consciousness suddenly or gradually as naloxone reverses the effects of the opioid overdose.

**2.Withdrawal Symptoms:** Naloxone can precipitate withdrawal symptoms as it rapidly reverses the effects of opioids. These symptoms can range from mild discomfort to more severe symptoms such as nausea, vomiting, sweating, agitation, and muscle aches.

**3.Explanation of Withdrawal:** It's important to reassure the individual that these withdrawal symptoms are temporary and will typically subside as the naloxone wears off, which usually occurs within 30 to 90 minutes.

**4.Desire to Use More Drugs:** Despite experiencing withdrawal symptoms, the individual may express a desire to use more drugs to alleviate discomfort or resume the desired effects. It's crucial to explain that taking more drugs will not be effective due to the blocking effects of naloxone.

## DO NOT

It's crucial to dispel misconceptions surrounding overdose response to ensure proper care and prevent further harm.

- 1. Do Not Put the Person in a Bath/Cold Water:** There's a risk of drowning or inducing shock. Placing a person in cold water can cause their blood vessels to constrict, potentially exacerbating the situation.
- 2. Do Not Induce Vomiting:** Inducing vomiting can lead to choking, especially if the person is unconscious or semi-conscious. It's also ineffective in removing opioids from the system.
- 3. Do Not Inject Them with Anything Other Than Naloxone:** Injecting substances like saltwater, cocaine, or milk will not reverse opioid overdose and can potentially cause more harm. Only naloxone is effective in reversing opioid overdose.
- 4. Do Not Use Physical Harm (Slapping, Kicking, Burning):** Inflicting physical harm can lead to serious injuries and complications. It does not address the underlying overdose and can exacerbate the situation.
- 5. Do Not Let Them Sleep It Off:** Allowing the person to sleep off an overdose can be fatal. Opioid overdose can lead to respiratory depression, and the person may stop breathing while unconscious.

## References

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6. Ottawa Public Health – Naloxone: <https://www.ottawapublichealth.ca/en/public-health-topics/signs-of-overdose.aspx>
7. CAMH: The Centre for Addiction and Mental Health: <https://www.camh.ca/>