

First Aid

First Aid - Administering Naloxone (naloxone hydrochloride)

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What is naloxone hydrochloride?

Naloxone hydrochloride (naloxone) is a drug that can temporarily stop the effects of opioid drugs. Naloxone can help restore breathing during an opioid overdose.

What are opioids?

Opioids are a group of drugs that includes morphine, heroin, methadone, fentanyl and oxycodone. This group of drugs is often prescribed to manage pain.

What are the signs and symptoms of an opioid overdose?

An opioid drug overdose happens when you take more drugs than your body can process. Signs and symptoms include:

- Slow, irregular or no breathing
- Slow or no heart beat
- Pale, clammy skin
- Extreme drowsiness

- Unconsciousness, or unable to arouse
 - Pinpoint (very small) pupils
 - Hypotension (unusually low blood pressure)
 - Hypoxia (a lack of oxygen which can lead to brain damage, cardiac arrest, and death)
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Is opioid use/overdose a workplace issue?

The [Canadian Union of Public Employees](#) (CUPE) states “As the prevalence of opioid overdose increases, it is becoming more likely that [workers] may encounter clients, patients and members of the general public who are experiencing suspected opioid overdose reactions.”

In addition, [National Institute for Occupational Safety and Health](#) (NIOSH) states that “If workers are under the influence of opioids while they are at work, they are likely to be at increased risk for injury. For workers in safety sensitive jobs, such as transportation and operators of heavy equipment, there will be increased risks for catastrophic events that impact many besides the worker.”

Please also see the OSH Answers “[Substance Use in the Workplace](#)” for more general information about opioids and other substances.

What should the workplace do if they choose to have naloxone available?

Because of the ease of use and its effectiveness, some organizations have decided to include naloxone as part of their first aid program, or make it available to assist the public. “Take-home” kits that use either a nasal spray or an injection are available from most pharmacies or local health authorities. The kits do not require a prescription. The kits expire and should be replaced as needed (approximately every 18-24 months).

Please also see the OSH Answers on [Opioids \(including Fentanyl\) - Precautions for first responders](#) for more information.

If an employer opts to offer additional first aid measures (including over-the-counter medications, administration of oxygen, use of epinephrine auto-injectors, naloxone, etc.), it is suggested that they first seek legal counsel so that they are aware of any liability issues, and to check with your [local jurisdiction](#) responsible for health and safety. For example, in some jurisdictions, distribution of over-the-counter medications is not recommended (although an individual who can purchase using a vending machine may be permissible). In other jurisdictions, distribution of over-the-counter medications may be permitted under specific circumstances (including the appropriate training of first aid personnel).

Employers should have policies and procedures in place, developed in consultation with the health and safety committee or representative. All persons responding to a situation must know what their duties and responsibilities are during the incident response.

Persons providing naloxone should have the training necessary to recognize the signs of an opioid overdose, and understand what steps to take.

It is recommended that these individuals have training in first aid, including cardio pulmonary resuscitation (CPR).

Training in how to respond to a potentially violent person is also necessary. Be aware that naloxone can temporarily reverse the effects of the opioid. The person given naloxone may experience acute opioid withdrawal, leading to pain, distress, and agitation. There is a risk of injury to people who are nearby. Withdrawal symptoms can also include nausea, vomiting, convulsions, tremors, increased blood pressure, heart issues, and pulmonary edema (fluid accumulation in the lungs). Naloxone itself may have side effects including aggressive behaviour, convulsions, body aches, diarrhea, increased heart rate, and other symptoms.

Appropriate personal protective equipment (PPE) is recommended to protect against biological exposure. Follow [routine practices](#) when exposure to blood or other body fluids is possible.

Support after an incident is also recommended. The experience may be traumatic, and psychological/mental health counselling may be necessary.

If storing naloxone, follow the manufacturer's instructions. Typically, naloxone must be stored at room temperature (between 15 and 25°C), and kept in the box until ready for use. Protect from light.

Naloxone can expire. Check the expiry date, and be sure there is always a current dose available.

When would you use naloxone?

Naloxone is safe to give to a person who is unconscious because of an opioid overdose. If you are unsure of the cause of unconsciousness, giving naloxone is not likely to cause further harm to the person. Naloxone will not reverse overdoses from other drugs, such as alcohol, benzodiazepines, or psychostimulants (e.g., cocaine, amphetamines, etc.).

In rare situations, a person may have a life threatening allergy to naloxone. However, [Health Canada](#) states that the naloxone should still be administered “as the outcome is likely better than not administering it”.

What first aid steps are appropriate when using naloxone?

Please also see the OSH Answers on [Opioids \(including Fentanyl\) - Precautions for first responders](#) for more information as contact with opioid drugs can be a concern. If you are not sure, do not touch or handle any product.

When administering naloxone:

- Recognize the signs and symptoms of an opioid overdose.
- Call for emergency medical assistance immediately.
- If the person's breathing stops, perform CPR if you are trained and it is safe for you to do so.
- Check for a medical alert tag to see if the person is known to be allergic to naloxone.
- Give the person the naloxone (including when a potential allergy is unknown). The drug maybe available as an injection or as a nasal spray. Follow the manufacturer's instructions for safe use. It may take about 1 to 5 minutes for breathing to return to normal.
- Monitor the person's condition while waiting for emergency assistance.
- Naloxone lasts for about 20 to 90 minutes. Since opioids may remain in the person's system longer, symptoms may return.
- A second dose may be required.
- Be prepared that the person may become aggressive, or may vomit/ have diarrhea.
- Always call for emergency medical assistance. A medical professional should monitor the person's recovery.

If using an injection method, be aware of the hazards and risks associated with [needlestick injury](#) and the transmission of infections.

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