



# MRM SKI PATROL INTRANASAL NALOXONE

# Objectives



- By the end of this course the OEC Technician will be able to:
  - Recognize the signs and symptoms of an overdose
  - Identify the indications, contraindications, and possible adverse reactions of Naloxone
  - Prepare and administer intranasal Naloxone
  - Describe how continued support will be provided to the patient

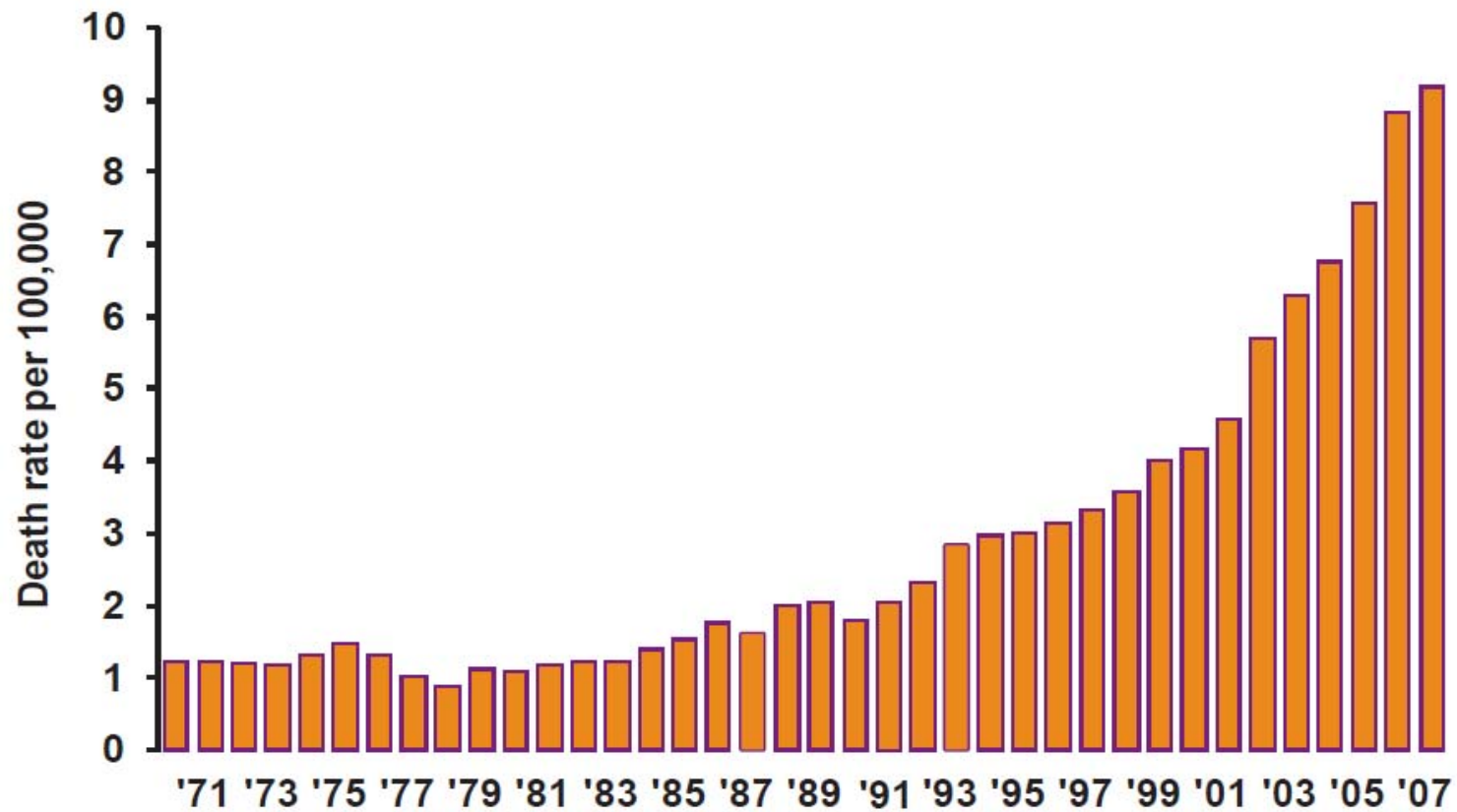
# History

- In 2007, approximately 27,000 unintentional drug overdose deaths occurred in the United States, one death every 19 minutes.



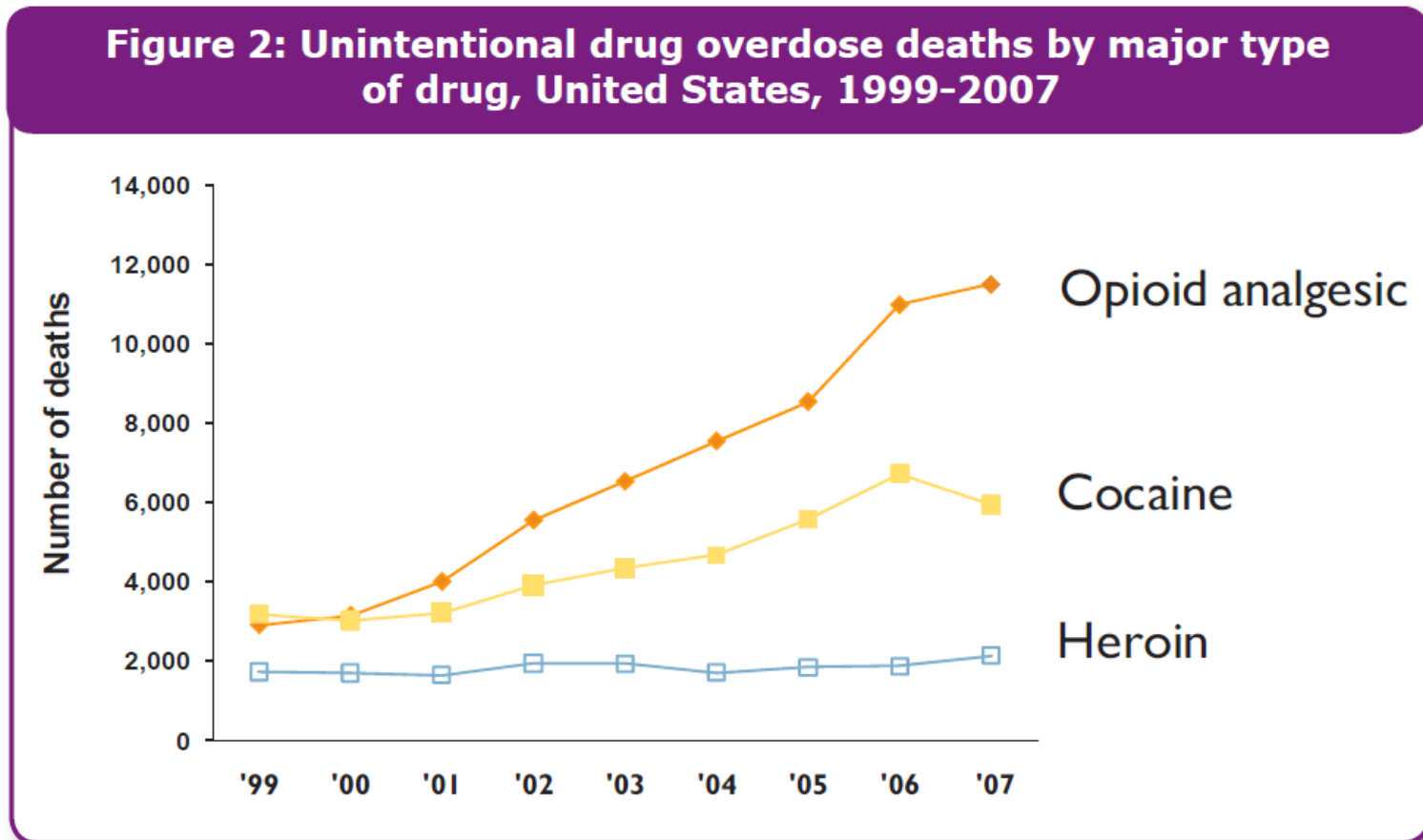
- About half of these deaths involved prescription opioid analgesics.
- Nearly 257 million prescriptions for prescription opioids were written in 2009 alone

**Figure 1: Rate of unintentional drug overdose death in the United States, 1970-2007**



Source: National Vital Statistics System

We need to be concerned with more than just heroin!



Source: National Vital Statistics System

# Treatment History



- We can provide respiratory support, but reversal of the cause of hypoventilation is the definitive treatment.
- Reversal of opiate intoxication reduces or eliminates the duration of hypoventilation/hypoxia.
- Prolonged hypoventilation complications include hypercarbia, sedation, hypoxia, aspiration, and death.

# Narcan Usage Protocol

- The administration of Nasal Narcan can be within the scope of practice of an OEC Technician pursuant to a protocol:
- **Provided the following: (section 4731.941 ORC)**
  - (1) A description of the clinical pharmacology of naloxone;
  - (2) Precautions and contraindications concerning furnishing naloxone;
  - (3) Any limitations the physician specifies concerning the individuals to whom naloxone may be furnished;
  - (4) The naloxone dosage that may be furnished and any variation in the dosage based on circumstances specified in the protocol;
  - (5) Labeling, storage, record-keeping, and administrative requirements;
  - (6) Training requirements that must be met before an individual will be authorized to furnish naloxone;
  - (7) Any instructions or training that the authorized individual must provide to an individual to whom naloxone is furnished.
- This PowerPoint and the 11/13/16 on-the-hill meeting meets these requirements. If you are uncertain regarding using Nasal Narcan, then please ask myself, or any other medical provider on the patrol for clarification.

# Opioids



- Synthetic or semi-synthetic alkaloid that acts in the Central Nervous System to:
  - ▣ Decrease the perception of pain
  - ▣ Decrease the reaction to pain
  - ▣ Increase pain tolerance
  
- May be prescribed for acute pain, debilitating pain, or chronic pain as part of palliative care (e.g., cancer).



# Opiates

- Opiates are alkaloid derived from the opium poppy plant and are non-synthetic.
- Examples are:
  - ▣ Morphine
  - ▣ Codeine
  - ▣ Heroin



# Opioids & Opiates

- ❑ Tolerance and/or addiction may occur, requiring increasing doses for the same effect.
- ❑ Common side effects include:
  - ❑ Nausea and vomiting
  - ❑ Drowsiness
  - ❑ Itching
  - ❑ Dry mouth
  - ❑ Miosis (constricted pupils)
  - ❑ Constipation



# Opioids & Opiates May Include:



- ❑ Buprenorphine
- ❑ Butorphanol (Stadol)
- ❑ Codeine
- ❑ Fentanyl (duragesic patch)
- ❑ Hydrocodone (Vicodin)
- ❑ Hydromorphone (Dilaudid)
- ❑ Meperidine (Demerol)
- ❑ Morphine
- ❑ Nalbuphine (Nubain)
- ❑ Oxycodone (Percocet/Percodan)
- ❑ Oxymorphone
- ❑ Pentazocine (Talwin)
- ❑ Paregoric
- ❑ Propoxyphene (Darvon)

# Heroin

*Heroin is an illegal opiate which may be injected, snorted, or smoked. It has many street names.*



# Naloxone is only used for opiate overdose

Remember, the following common street drugs are not opioids/opiates and therefore not addressed by this portion of the protocol: cocaine, LSD, ecstasy(Molly), sedatives/tranquilizers, and marijuana.



# Opioid & Opiate Addiction and Treatment Drugs



- ❑ Methadone is an opioid which may be used as a pain reliever, but is also commonly prescribed in addiction treatment.
- ❑ Suboxone and Subutex are brand names for the opioid buprenorphine, which may be used as a pain reliever, but is also commonly prescribed in addiction treatment.
- ❑ These drugs last a long time and can help reduce the craving for opiate and opioids for whole days.
- ❑ Methadone and buprenorphine are never used alone as the sole plan for treatment of addiction, but are used in combination with counseling and skill learning efforts.

# Who's at High Risk for Overdose?



- ❑ Individuals using medical visits and care from multiple doctors who are not following instructions about prescription use
- ❑ Users of prescriptions that should belong to others
- ❑ Users who inject drugs for greater effects
- ❑ Former users who are recently released from prison or who entering and exiting from drug treatment programs

## Who Else is at Risk?

- ❑ Over-medicated elderly patients
- ❑ Patients with pain relieving patches
- ❑ Children with access to prescription pain-killers



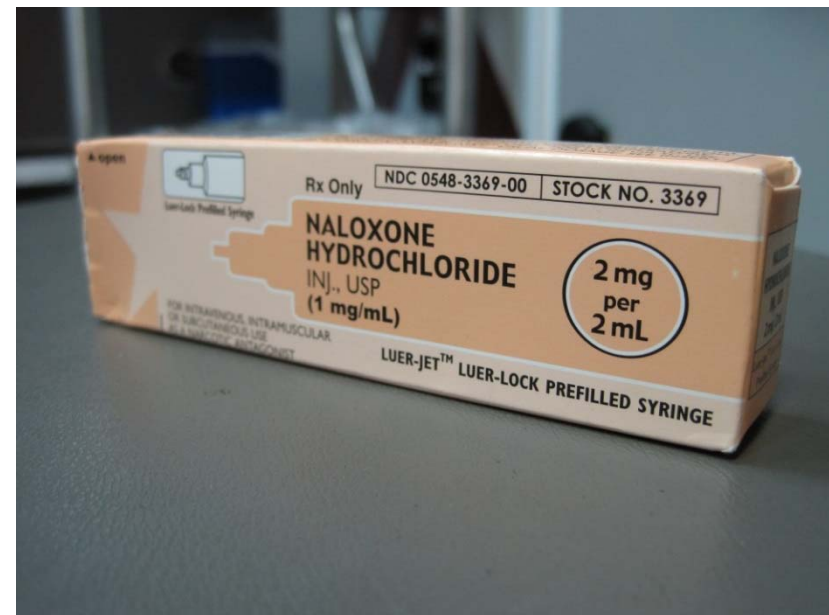




# Target Population

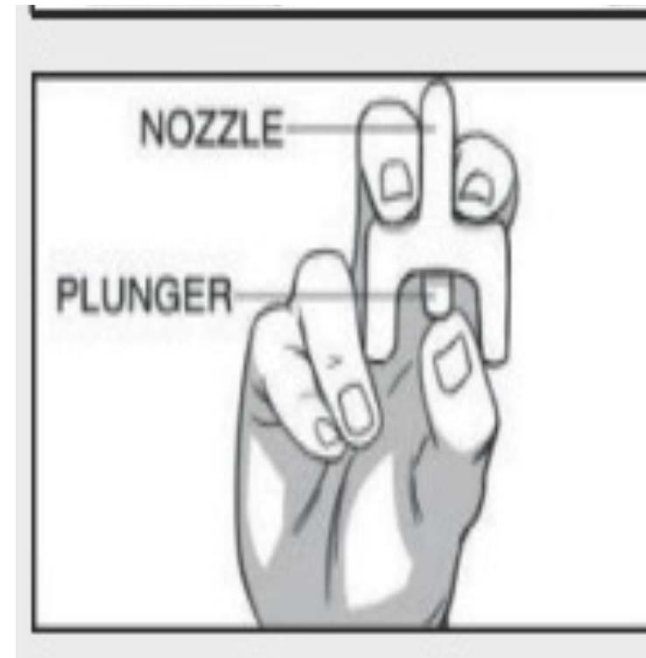
# Naloxone

- Naloxone (Narcan) is an opioid (narcotic) antagonist that can reverse Central Nervous System and respiratory depression secondary to an overdose of opioids/opiates.
- Naloxone is **NOT** effective against respiratory depression due to non-opioid drugs (for example benzodiazepines such as Xanax).



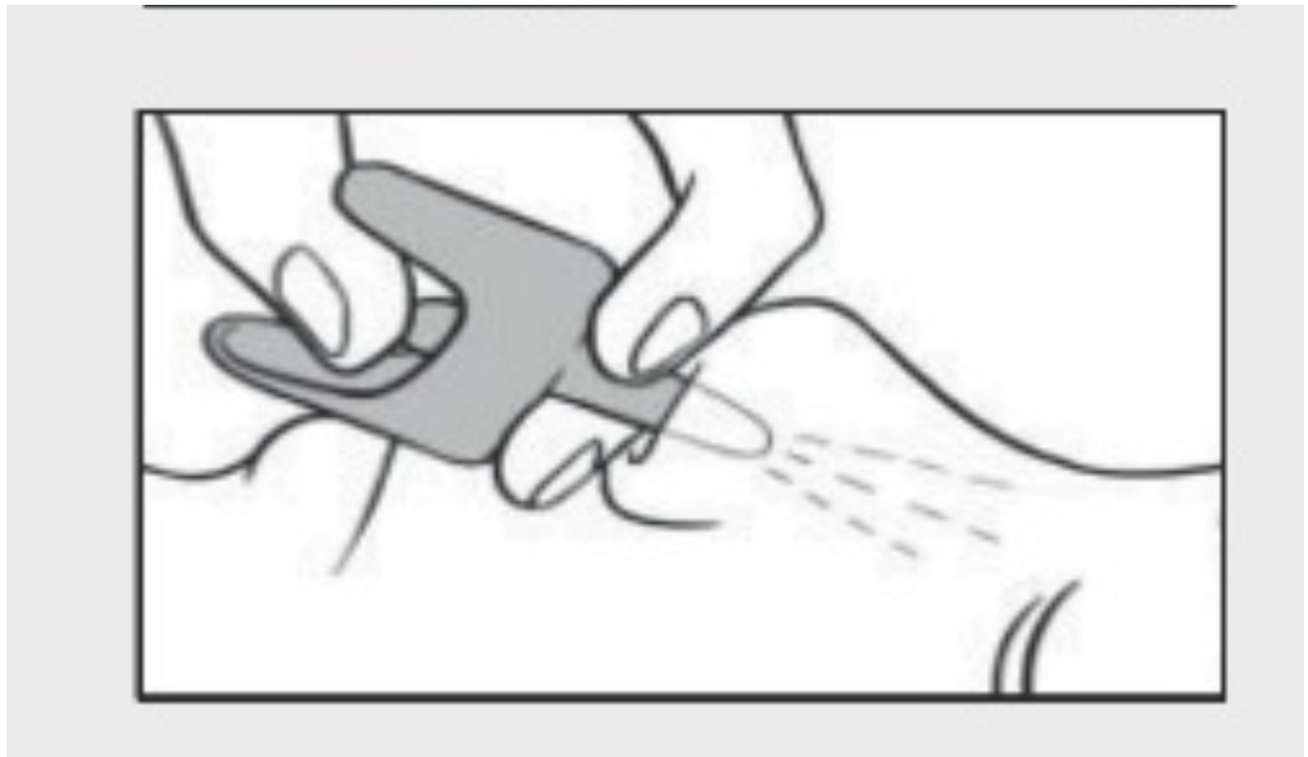
# Why Intranasal Naloxone?

- Minimizes risk for blood borne pathogen exposure (no needle)
- May be administered rapidly and painlessly
- Onset of action is 3-5 minutes, peak effect is 12-20 minutes



# Why Intranasal Naloxone?

*Works almost as quickly as IV route since nasal mucosa is highly vascularized and absorbs drugs directly into the blood stream.*



# On Scene



- ❑ You may know you are responding to a suspected overdose, or you may be told upon arrival.
- ❑ Scene safety/BSI is a top priority.
- ❑ Do you need police present or responding? – this is a judgement call for the ski patrol and it relates to scene safety, not to punitive action. Probably not necessary in most instances.
- ❑ Remain non-judgmental and non-confrontational.
- ❑ Ask bystander(s) what and when the patient injected, ingested, or inhaled (or if a transdermal patch has been used).
- ❑ Was more than one substance used?

# On Scene – more likely at a residence

- Drug use clues:
  - ▣ Multiple bottles of the same prescription medication
  - ▣ Multiple bottles of the same prescription medication that don't belong to the patient or anyone else at that residence



# On Scene – more likely at the hill

- Drug use clues:

- ▣ “Packaged” drugs
- ▣ Drug kits
- ▣ “Track Marks” – can be anywhere (addicts often attempt to hide these)



# Opioid/Opiate Toxidrome



- Signs & Symptoms:
  - ▣ Unresponsive or minimally responsive with a pulse
  - ▣ Respiratory arrest
  - ▣ Depressed respiratory rate ( $< 6$  per minute)
  - ▣ Agonal respirations
  - ▣ Cyanosis
  - ▣ Miosis (constricted pupils)
  - ▣ Decreased mental status or confusion
  - ▣ Slurred speech and/or difficulty ambulating
  - ▣ Nausea/vomiting



# Indications for the use of Naloxone



- Respiratory arrest or hypoventilation with evidence of opioid/opiate use (bystander report, drug paraphernalia, opioid prescription bottles, “track marks”)

**and/or**

- Recognition of the opiate/opioid toxidrome

# Contraindications

- ❑ Known hypersensitivity (rare)
- ❑ Recent seizure (by report or signs)
- ❑ Head/facial trauma
- ❑ Nasal trauma (obstruction and/or epistaxis)
- ❑ Cardiopulmonary arrest – although it is reasonable to administer while continuing CPR



# Narcan Nasal Spray Use

- ❑ Ensure scene safety!
- ❑ Maintain appropriate Body Substance Isolation (BSI)
- ❑ Maintain open airway and assist ventilations (use BMV and oral airway if unresponsive with a pulse)
- ❑ Suction as needed



# Narcan Nasal Spray Use

- ❑ Assess level of consciousness and vital signs
- ❑ Activate ALS if not already responding
- ❑ Initiate transport as soon as possible (do not wait on scene for ALS)
- ❑ Call Patrol Room for Trauma Bag
  - ❑ (this is where Narcan is kept)



# Adult Narcan Nasal Spray Use

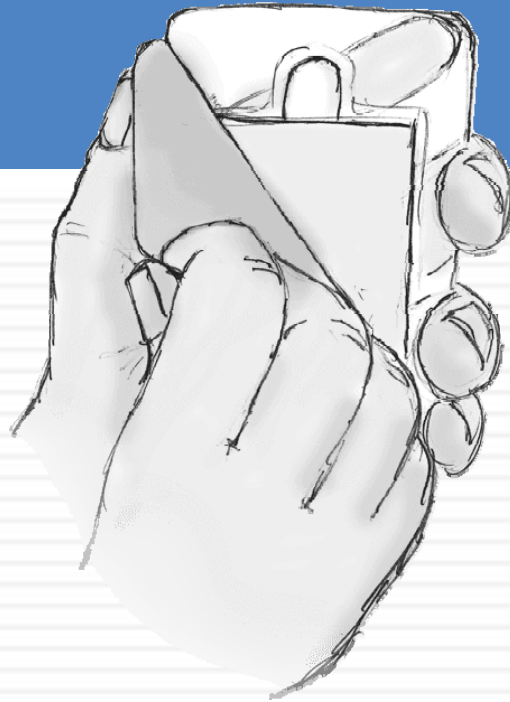
- Administer Naloxone 4.0mg Nasal Spray (these are single dose nasal spray kits)
  - ▣ If no response in 2-3 mins, you may repeat with a second dose
- Continue ventilating the patient as needed
- Consider contacting poison control if poly-substance use is suspected : (800) 222-1222





# Nasal Spray Use

# 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.**

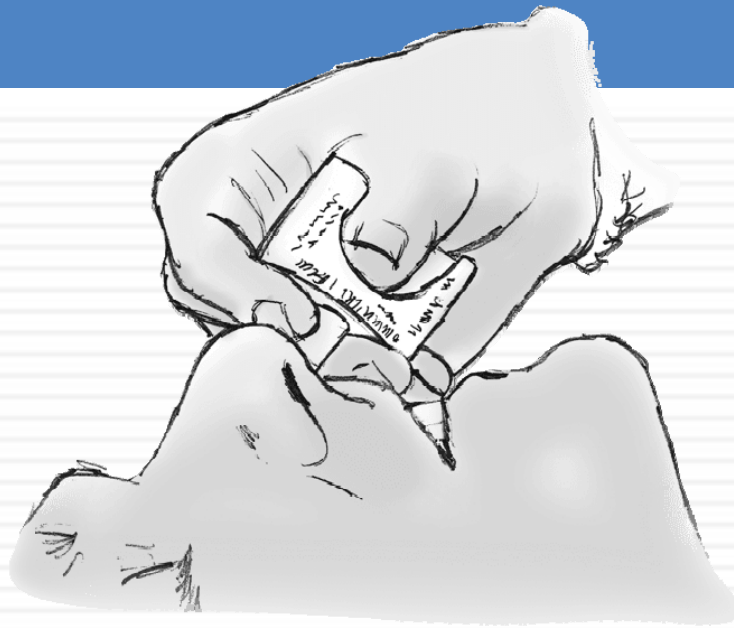
# PLACE



**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.**

## Administration tips



- Ventilate the patient with a BVM
- Assess the patient to ensure their nasal cavity is free of blood or mucous (suction if needed)
- Control the patient's head with one hand

# **NARCAN<sup>®</sup>** (naloxone HCl) **NASAL SPRAY**

## QUICK START GUIDE Opioid Overdose Response Instructions

Use NARCAN Nasal Spray (naloxone hydrochloride) for known or suspected opioid overdose in adults and children.

**Important:** For use in the nose only.

Do not remove or test the NARCAN Nasal Spray until ready to use.

### 1 Identify Opioid Overdose and Check for Response

**Ask** person if he or she is okay and shout name.

**Shake** shoulders and firmly rub the middle of their chest.

**Check for signs of opioid overdose:**

- Will not wake up or respond to your voice or touch
  - Breathing is very slow, irregular, or has stopped
  - Center part of their eye is very small, sometimes called "pinpoint pupils"
- Lay the person on their back to receive a dose of NARCAN Nasal Spray.



### 2 Give NARCAN Nasal Spray

**Remove** NARCAN Nasal Spray from the box.

Peel back the tab with the circle to open the NARCAN Nasal Spray.



**Hold** the NARCAN nasal spray with your thumb on the bottom of the plunger and your first and middle fingers on either side of the nozzle.

**Gently insert the tip of the nozzle into either nostril.**

- Tilt the person's head back and provide support under the neck with your hand. Gently insert the tip of the nozzle into **one nostril**, until your fingers on either side of the nozzle are against the bottom of the person's nose.

**Press the plunger firmly** to give the dose of NARCAN Nasal Spray.

- Remove the NARCAN Nasal Spray from the nostril after giving the dose.



### 3 Call for emergency medical help, Evaluate, and Support

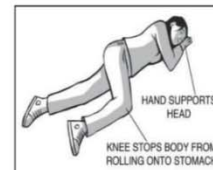
**Get emergency medical help right away.**

**Move the person on their side (recovery position)** after giving NARCAN Nasal Spray.

**Watch the person closely.**

**If the person does not respond** by waking up, to voice or touch, or breathing normally another dose may be given. NARCAN Nasal Spray may be dosed every 2 to 3 minutes, if available.

**Repeat Step 2 using a new NARCAN Nasal Spray to give another dose in the other nostril.** If additional NARCAN Nasal Sprays are available, repeat step 2 every 2 to 3 minutes until the person responds or emergency medical help is received.



# Administration



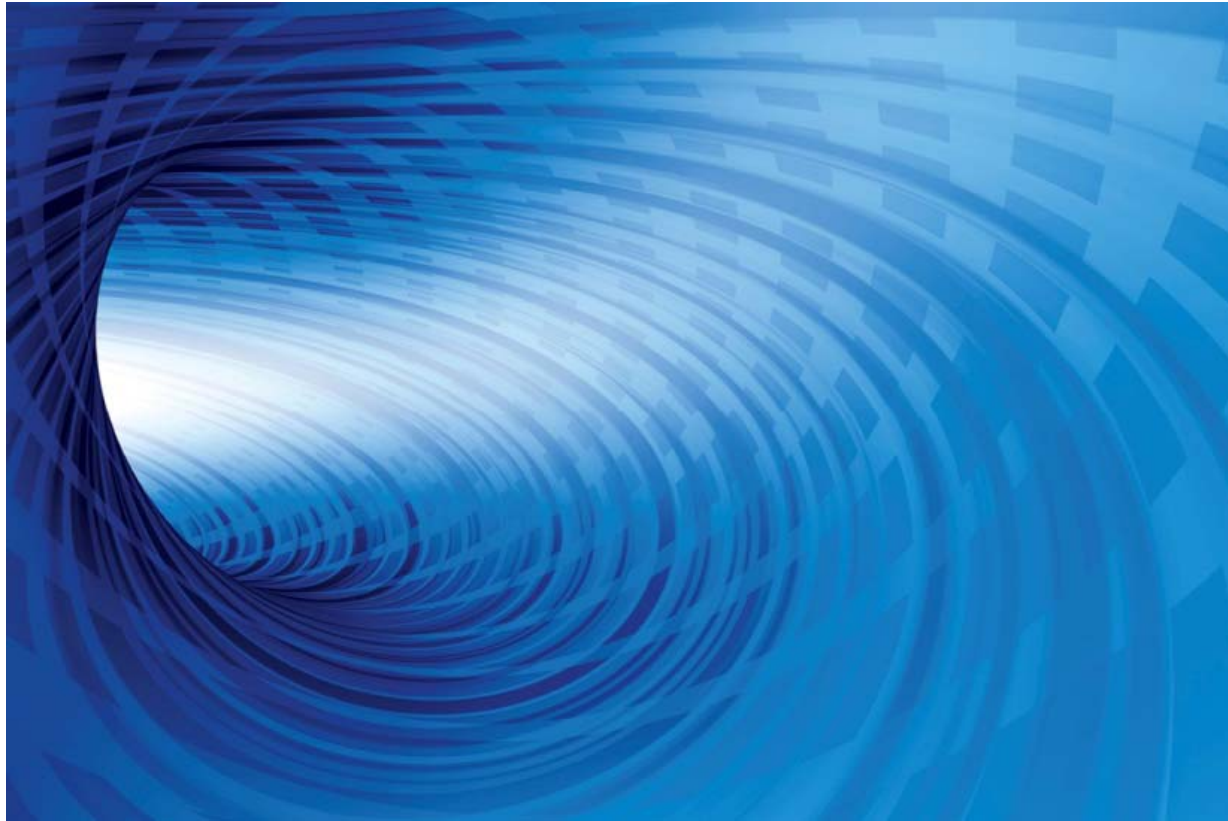
In this picture the technician is using an atomizer device – not the Nasal Spray (which is what you will be using)

# Documentation



- As always, carefully document, including:
  - ▣ Patient presentation (neuro, respiratory, cardiac)
  - ▣ Signs and symptoms (before and after treatment)
  - ▣ Vital signs (before and after treatment)
  - ▣ Naloxone administration prior to EMS arrival
  - ▣ Clinical response
  - ▣ Record time drug was administered, amount, and route, for example:
    - “19:21, Naloxone 4.0mg (one dose) nasal spray”

# Avoid “Tunnel Vision”



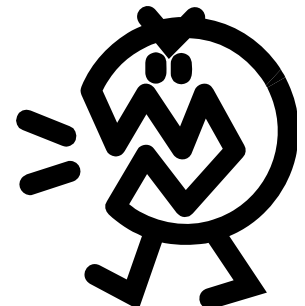
## Other Possibilities



- ❑ The patient has taken an amount of opioids that is more than the Naloxone is able to counter.
- ❑ Maybe it is not an overdose or other substances are involved!
- ❑ What other conditions may have similar signs and symptoms? Consider medical or traumatic causes.
- ❑ How would this change your treatment plan?

# Adverse Reactions

- ❑ Use **CAUTION** when administering Naloxone to narcotic dependent patients!
- ❑ Rapid opiate withdrawal may cause nausea and vomiting and **extreme combativeness**.
  - ❑ They may be upset when they wake up!
  - ❑ Don't hesitate to summon law enforcement for assistance with a combative patient
- ❑ Keep the airway clear and be prepared to suction!





# Adverse Reactions

- Rapid opiate withdrawal may also cause:
  - ▣ Runny nose
  - ▣ Diaphoresis (excessive sweating)
  - ▣ Tachycardia
  - ▣ Tremulousness
  - ▣ Hypertension (high blood pressure)
  - ▣ Hypotension
  - ▣ Cardiac disturbances, including cardiac arrest



# Critical Reminder

DO NOT get  
distracted by  
drug  
administration!

Be sure to  
ventilate  
properly as  
needed!



# Patient Refusals



- ❑ Do not “treat and release”
- ❑ A refusal must be signed by a patient who can reasonably be determined to have the capacity to make an informed decision to refuse further care
- ❑ An overdose patient is unlikely to fall into this category
- ❑ Request police assistance if needed

# References



- ❑ Centers for Disease Control
- ❑ Drugs.com
- ❑ Federal Drug Administration
- ❑ MDPH Bureau of Substance Abuse Services
- ❑ N.O.M.A.D. (Not One More Anonymous Death Overdose Prevention Project)
- ❑ <https://www.narcan.com/>
  - ▣ This website has great graphics on the administration of the Nasal Spray