





What is Narcan (naloxone)?

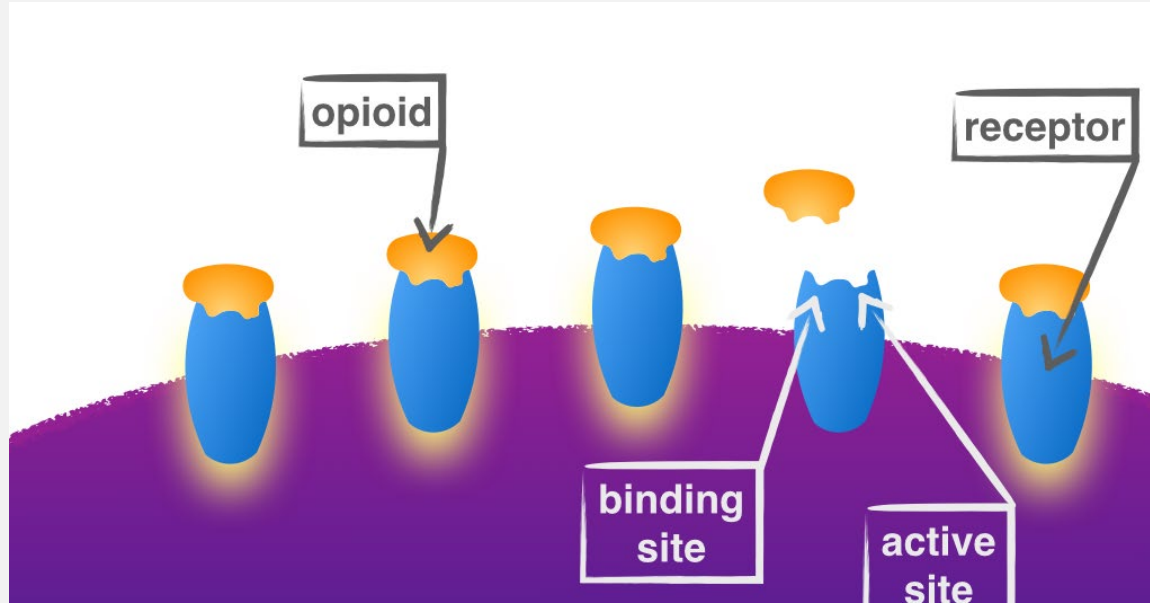
Narcan is the trade name for naloxone. It is an opioid antagonist that prevents someone from succumbing to respiratory collapse due to opioid overdose.

What is an opioid?



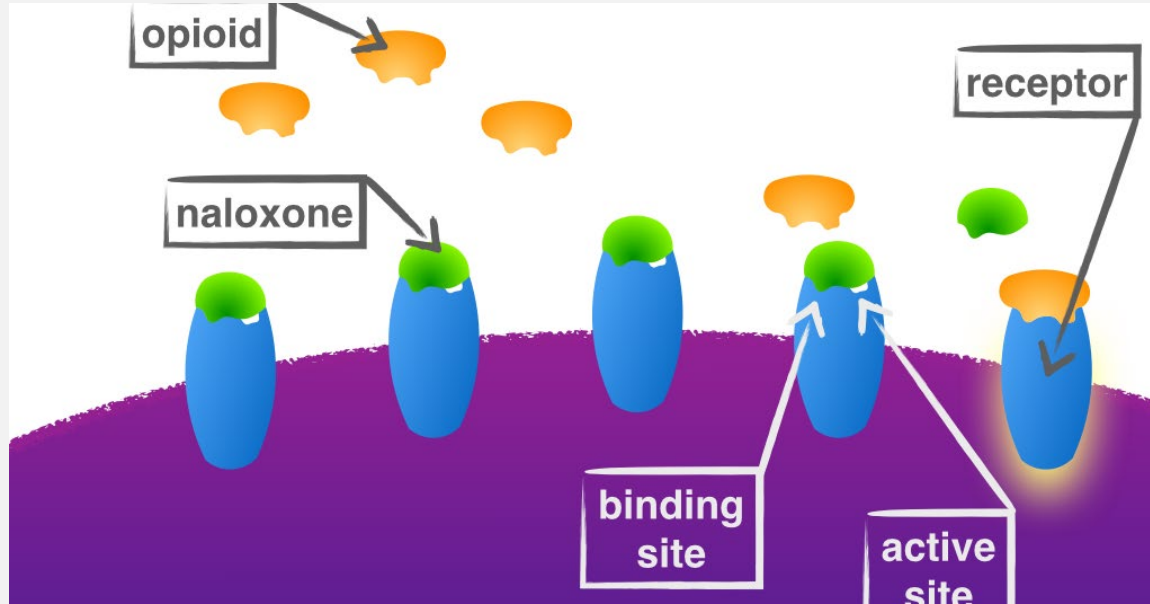
What is an Opioid Antagonist?

- When someone uses opioids, they bind to opioid receptors and activate the opioid pathways, inducing euphoria, pain relief, and other symptoms. Opioid antagonists bind to the same receptors, but prevent the receptors from “activating.” The receptors have a higher affinity or “like” antagonists more than they “like” opioids. Therefore, the antagonist (naloxone) will knock the opioid off the receptor and attach.



Opioid (heroin, oxycodone, morphine) binding.

The opioid attaches to the receptor like a key to a lock. Once the key enters the lock, the pathway is triggered and the user experiences the “high.” The user also experiences a decreased respiratory rate, constricted pupils, nausea/vomiting, and drowsiness.



Narcan (naloxone) binding

The opioid is kicked off the receptor site, since the receptor has a higher affinity for naloxone than a full-agonist opioid. The naloxone does not activate the receptor, so the person no longer experiences the typical opioid symptoms.

Naloxone is safe

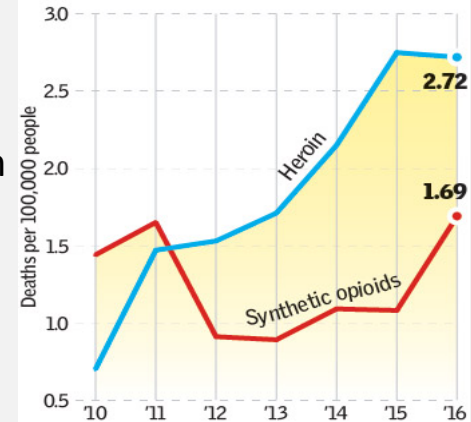
- It cannot be abused like other opioids
- It has no effect unless opioids are present
- Simply restores breathing
- Does not increase risk-taking behaviors

Why is Naloxone needed?

- Opioid overdoses in Nevada
 - Many overdoses are witnessed
 - Timely restoration of breathing reduces brain damage and death
 - With proper training, laypeople can recognize an overdose and administer naloxone.
 - Emergency response takes time. Early intervention saves lives.

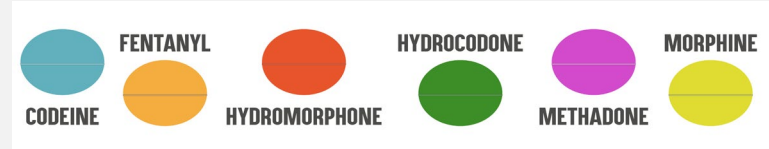
Opioid overdose deaths

While Nevada overdose deaths overall have dropped slightly since 2010, heroin deaths nearly tripled between 2010 and 2016. Those deaths remained essentially unchanged between 2015 and 2016, when deaths from synthetic opioids spiked.



Source: Nevada Department of Health and Human Services
Wes Rand Las Vegas Review-Journal

Who benefits from naloxone?



- Illicit opioid users (e.g. heroin users)
- High dose opioid users (>100mg /day morphine equivalence)
- Those entering or tapering methadone maintenance treatment
- Prescription and illicit opioid use by those with chronic pain, respiratory disease, kidney disease, liver disease
- Those who are concurrently taking benzodiazepines and opioids. Opioid/benzo combos are especially deadly since they both decrease breathing rate.
- Those who are concurrently taking other sedatives (alcohol, certain sleep medications) and opioids.
- Those at risk who live in rural areas with decreased access to emergency/medical care.

Symptoms of Opioid use

- Someone “high” on opioids may present with the following observable symptoms: constricted (small) pupils, increased sweating, nausea/vomiting, drowsiness or “nodding,” slurred speech, elevated mood, increased enthusiasm, or euphoria.

Symptoms of an overdose

- Shallow breathing
- Pallor
- Loss of consciousness
- Blue skin from loss of circulation
- Skin may feel cool to touch





Fentanyl: A Deadly Combo

- Fentanyl - a synthetic opioid that is 50-100 times stronger than heroin and morphine.
- Pharmaceutical Fentanyl cut with heroin to decrease production costs. Patches are cooked and medication scraped and crystalized.
- Users experience an increased opioid effect and chances for overdose increase dramatically.
- Responsible for the increase in opioid overdoses in recent years
- Higher dose of naloxone needed to reverse Fentanyl intoxication

How to Administer Naloxone

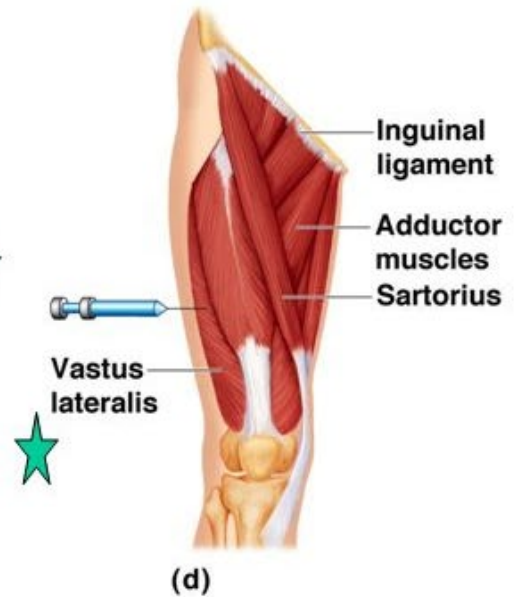
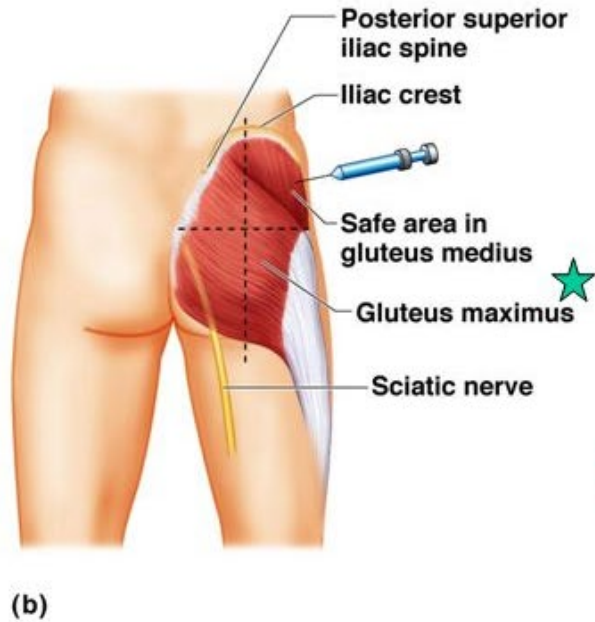
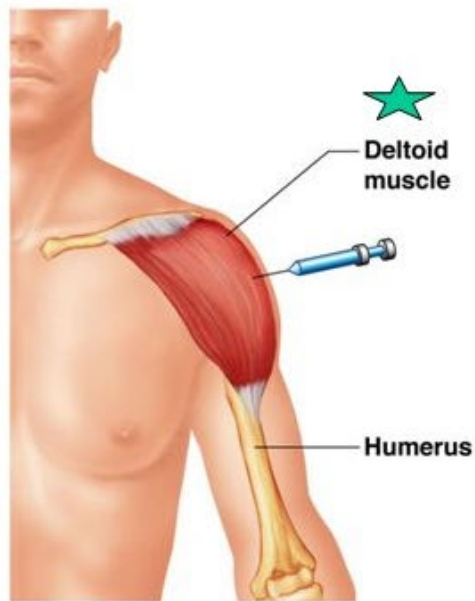
- We offer naloxone kits at Change Point without a prescription
- Each kit contains: 2 10mL vials of naloxone (0.4mg/mL), 2 antiseptic ETOH pads, 2 3mL intramuscular syringes, and instructions for use.
- A simple form is required to be filled out by each participant (for grant purposes).





How to Administer Naloxone

- Assess patient for respiratory distress, blue-tinged skin, pinpoint pupils, unresponsiveness, unconsciousness, apnea, or very slowed breathing
- Call 911 and ensure emergency services are in route
- Remove supplies from naloxone kit and use 3mL syringe to draw up entire contents of naloxone vial
- Use alcohol pad to clean off deltoid muscle (upper arm/shoulder) or other easily accessible deep muscle (gluteus maximus, vastus lateralis)
- Pinch skin and inject full dose of naloxone into muscle
- Offer rescue breathing, or have another helper administer rescue breathing during injection process. Do NOT perform chest compressions unless victim is pulseless— CPR is intended for cardiac arrest, not opioid overdose
- If person does not begin breathing within 4 minutes, repeat process and administer second vial of naloxone



Intramuscular (IM) injection sites





Other Information

- According to Cordant Solutions, Naloxone has reversed over 26,000 overdoses between the years 1996-2014.
- Naloxone will precipitate withdrawal in opioid dependent individuals. Withdrawal symptoms include restlessness, agitation, nausea, vomiting, increased heart rate, and sweating.
- Those who overdose and are taking long-acting or delayed-release opioids may need to be given repeat doses of naloxone, as opioids remain in the circulation and may reattach once naloxone's effect wears off.

THANK YOU

“

The staff at HOPES have given me my life back. The only way I can hope to repay them is by passing their kindness on to others."

- Steve | HOPES Client

References

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- [*"The History of Naloxone - Cordant Solutions"*](#). Cordant Solutions. 2017-07-05. Retrieved 2018-8-23.
- <https://harmreduction.org/issues/overdose-prevention/overview/overdose-basics/responding-to-opioid-overdose/perform-rescue-breathing/>. Retrieved 2018-8-28.