

Take **A.C.T.I.O.N** Naloxone Training to Prevent Overdose Deaths

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What Can We Do?



CDC Strategies for Overdose Prevention

- Improve prescribing practices
 - Provider education
 - Screening for opioid use disorder
- Prevent Abuse
 - Prescription drug monitoring program
 - Drug Take-Back Programs
 - Youth substance abuse prevention
 - Abuse deterrent formulations



CDC Strategies for Overdose Prevention

- Provide Treatment
 - Expand Medication-Assisted SUD treatment with counseling and behavioral therapies
- Prevent Death
 - Expand access to and use of naloxone



Cost Benefit of Naloxone

1

death can be prevented for
every 227 naloxone kits
distributed³



COST EFFECTIVE

A hand holding a white marker, having just finished writing the words "COST EFFECTIVE" on a white surface. A horizontal line is drawn under the text.

Myths and Facts

Myth

- There is very little you can do when a person is having an opioid overdose since s/he could die instantaneously

Fact

- Death from overdose is rarely instantaneous. There is enough time to prevent an overdose

Myths and Facts

Myth

- It is really hard to prevent a person from dying of an opioid overdose since people usually use drugs in private.

Fact

- The majority of overdoses occurs in the presence of others.

Myths and Facts

Myth

- Preventing death from an overdose is not easy. You have to complete a lengthy, difficult training.

Fact

- Overdose can be reversed by rescue breathing/CPR and by giving the person a medication called naloxone, which is easy to administer

Myths and Facts

Myth

- It is a waste of time to give out naloxone since many are not capable of recognizing and managing an overdose with naloxone.

Fact

- From 1996 to June 2014, >152,000 community persons have been trained with >26,400 overdose reversals reported with naloxone.

Evaluations of overdose education and naloxone distribution (OEND) to laypersons

Feasibility

- Piper et al. Subst Use Misuse 2008; 43: 858-70.
- Doe-Simkins et al. Am J Public Health 2009; 99: 788-791.
- Enteen et al. J Urban Health 2010; 87: 931-41.
- Bennett et al. J Urban Health. 2011; 88; 1020-30.
- Walley et al. JSAT 2013; 44: 241-7. (Methadone and detox programs)

Increased knowledge and skills

- Green et al. Addiction 2008; 103; 979-89.
- Tobin et al. Int J Drug Policy 2009; 20; 131-6.
- Wagner et al. Int J Drug Policy 2010; 21: 186-93.

No increase in use, increase in drug treatment

- Seal et al. J Urban Health 2005; 82: 303-11.
- Doe-Simkins et al. BMC Public Health 2014 14: 297.

Reduction in overdose in communities

- Maxwell et al. J Addict Dis 2006; 25; 89-96.
- Evans et al. Am J Epidemiol 2012; 174: 302-8.
- Walley et al. BMJ 2013; 346: f174.

Cost-effective \$438 (best) \$14,000 (worst) per quality-adjusted life year gained

- Coffin and Sullivan. Ann Intern Med. 2013 Jan 1; 158(1): 1-9.

Should focus on people who use drugs

- Rowe et al. Addiction 2015; 1360-0443



10 2 mg

EVZIO 2 mg

EVZIO 2 mg Out

4 mg NARCAN NASAL SPRAY

Myths and Facts

Myth

- The person who receives naloxone will react violently when the medication is administered and his/her overdose is reversed.

Fact

- In the past, some people have witnessed violent reactions to naloxone because of sudden withdrawal symptoms; however, the doses of naloxone are now more regulated by protocols.

Myths and Facts



Myth

- Using naloxone will delay entry into drug treatment and encourage riskier drug use.

Myths and Facts

Fact

- Studies have shown that naloxone availability does not encourage drug users to increase drug use, or increase the likelihood to harm themselves or those around them
 - Shown to reduce self-reported drug use
- Naloxone does not enable – it only enables OD victim to breathe.
- Dead people don't recover.

Michigan Legislation

- **House Bill 5406 Public Act 313 of 2014**
- **Sec. 333.17744c.** A person that administers an opioid antagonist to an individual who he or she believes is suffering an opioid-related overdose and that acts in ***good faith*** and with reasonable care is ***immune from criminal prosecution*** or sanction under any professional licensing act for that act.



Michigan Legislation

- Good Samaritan Law:
 - **House Bill 5649, 5650**
 - **Public Act 307 of 2016**
 - Give overdosing drug user limited criminal immunity (from possession charges and illicit use of controlled substances) when seeking treatment for him/herself or summoning medical assistance for someone else
 - But does not apply if you have a warrant for your arrest, possesses more drug than personal use



Michigan Legislation

- Allow naloxone to be prescribed to friends and families
- **Require emergency medical personnel** to carry naloxone and be trained to administer
- Allows **pharmacists to dispense** naloxone with standing order
- Give **school boards** the option to obtain a prescription for naloxone to be administered by a school nurse or other trained employee in case of a student overdose.



Who is at risk?




What are Opioids

- Opioids are class of drugs that are used to relieve pain, treat SUDs, and suppress cough
- Made naturally from opium poppy plant (opiate) or synthetically/chemically manufactured (opioids)



Onset, Potency, Duration of Opioids

Oral (potency compared to Morphine)	Onset	Duration
Morphine	15-60min	4-6 hrs
Hydrocodone	10-30min	4-6 hrs
Heroin (2x)	Intense euphoria 45sec-several mins; peak effect 1-2hrs	3-5 hrs
Methadone	30-60mins	22-48 hrs
Fentanyl (100x)	5-15mins	1-2 hrs
Carfentanil (10,000x)	In moose, elk: 2-20mins	

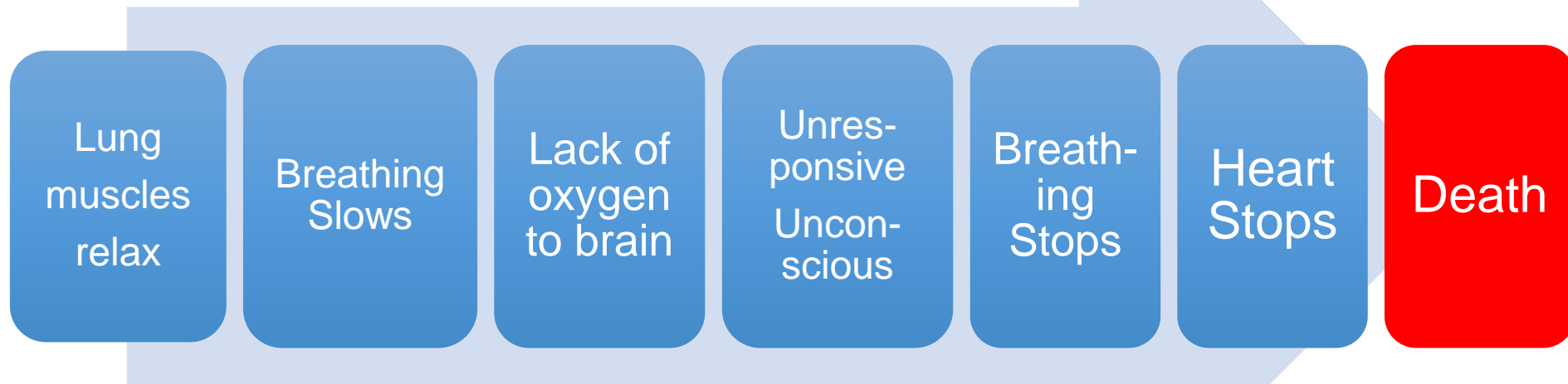
But what is DEADLY?



Comparing the size of lethal doses of heroin, fentanyl, and carfentanil. The vials here contain an artificial sweetener for illustration. (New Hampshire State Police Forensic Laboratory)

How Do Opioids Affect Breathing?

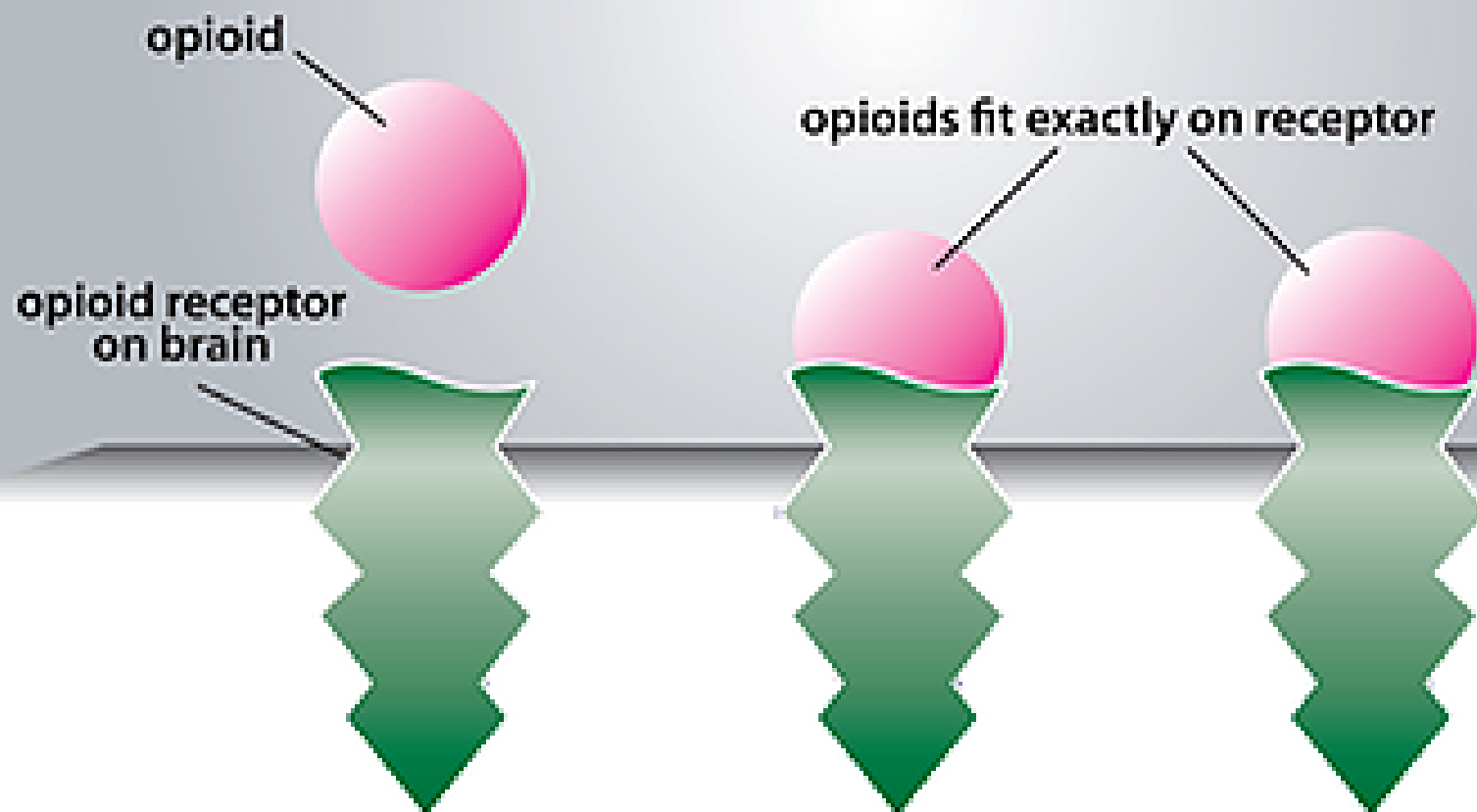
- Opioids bind to opioid receptors (mu) in the brain and in the spinal cord
- When too many opioids are bound to the receptors in the brain, your:



Breathing slows down till it stops.
Occur minutes to hours after drug use.

Opioids attaching to receptors

The brain has many, many receptors for opioids.
An overdose occurs when too much of an opioid, such as heroin or oxycodone, fits in too many receptors slowing and then stopping the breathing.



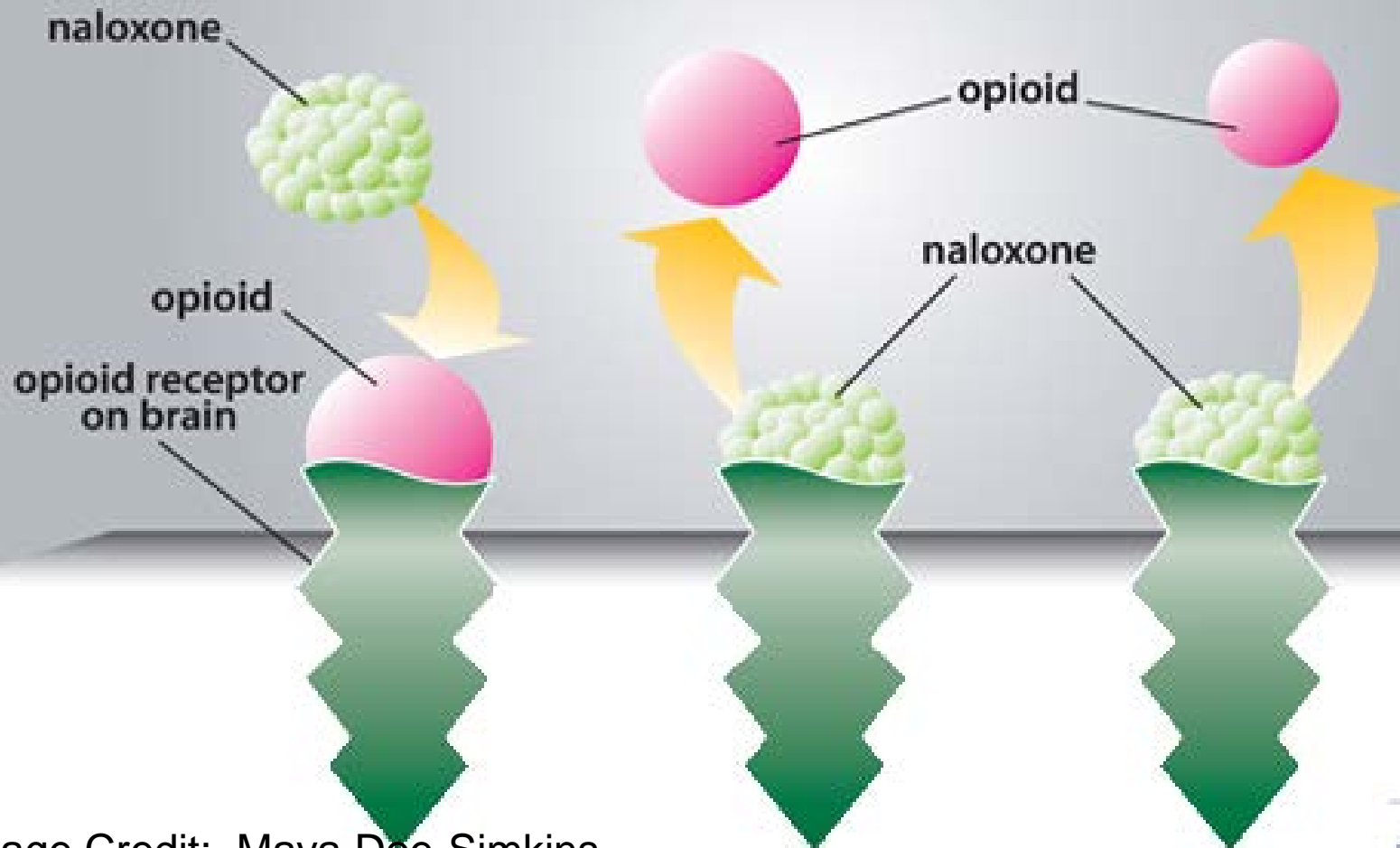
COPE

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Pittsburgh
Pittsburgh

Naloxone reversing an overdose

Naloxone has a stronger affinity to the opioid receptors than opioids, such as heroin or oxycodone, so it knocks the opioids off the receptors for a short time (30-90 minutes).

This allows the person to breathe again and reverse the overdose.



COPE

Really High vs Overdose Signs

REALLY HIGH	OVERDOSE
Nodding off but responds to stimulation like yelling, vigorous shaking, sternal rub	NOT responsive to 3 S's (shouting name, shaking shoulders vigorously, and sternal rub)
Breathing 8 or more times/minute	Very infrequent or no breathing (<8breaths/min)
Sleepy looking	Blue to purple or grayish lips and fingertips
Speech is slowed/slurred	Deep snoring or gurgling (death rattle)
	Very small (pinpoint) pupils
Response: stimulate, observe, stay with the person	Response: call 911, give naloxone, rescue breathing/cpr

What is Naloxone?

- Different formulations

**IM –
requires
needle
syringe**



**IN –
NonFDA,
requires
atomizer**



Narcan®

What is Naloxone?

- Only reverses opioid overdoses
- No effect if you do NOT have opioids in your body
- No abuse potential
 - Can't get high, or modified for recreational use
- Not a scheduled drug
- Pregnancy Category C
 - Recommended for suspected overdoses
- Shelf life = 18-24 months



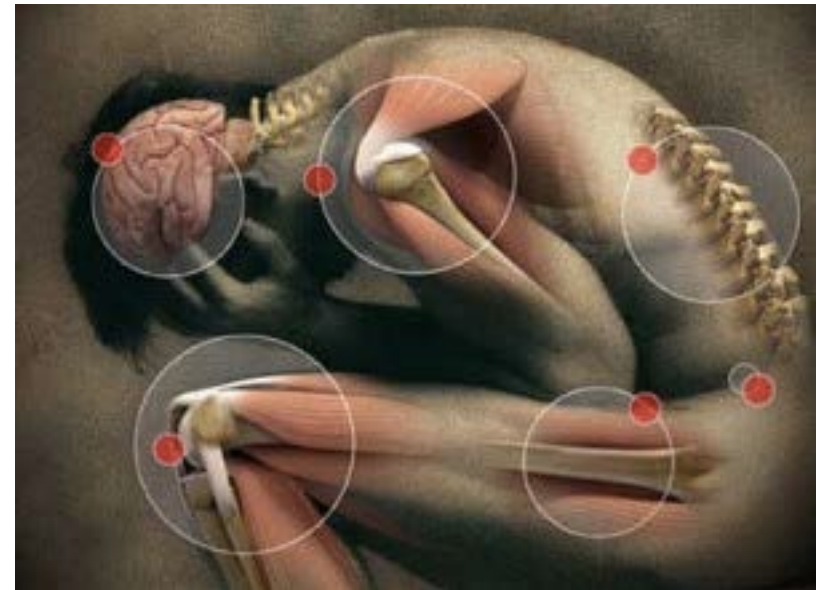
What is Naloxone?

- Acts quickly, 2-5 mins, often in <3mins
- Works for only **30-120 minutes**
 - Depending on amount, type of drug used, and type of naloxone formulation
 - Overdose symptoms may RETURN
- May be repeated every 2-3 minutes



What is Naloxone?

- People who are opioid dependent, can cause withdrawal symptoms
 - Nausea and vomiting
 - Diarrhea
 - Chills
 - Muscle Discomfort
 - Disorientation
 - Combativeness
 - Resurgence of pain that the opioid was relieving



Opioid Overdose Response

Take A.C.T.I.O.N

Arouse the person

- 3 “S” : shout, shake, sternal rub

Check for signs of opioid overdose

Telephone 911

Intranasal/Intramuscular Naloxone

O: Oxygen

- 2 rescue breath, and/or CPR if you know how, or follow dispatch instructions

N: Naloxone again in 3 mins

- Recovery position if breathing resumes
- Stay with the person till help arrives

“Lives saved after drug overdoses at Ann Arbor homeless shelter” mLIVE 1/22/2017







www.overdoseaction.org

**Take A.C.T.I.O.N.
to Save Lives.
Carry Naloxone.**