OVERDOSE EDUCATION, PREVENTION, AND REVERSAL

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LEARNING OBJECTIVES

- Understand what opioids are and how they work
- Identify the signs of an opioid overdose
- Obtain baseline understanding of the opioid overdose epidemic
- Harm reduction
- Become familiar with overdose prevention and policies
- Learn how to respond and reverse an opioid overdose
- Naloxone Facts: How, What, Where, and When

192

The number of Americans who will die today from a drug overdose.

Source: Centers for Disease Control and Prevention

2,098

The number of Illinoisans who
died from an opioid overdose in 2019.

Source: IDPH Opioid Data Dashboard

Trends by Age Group

		Fatal						
		2013	2014	2015	2016	2017	2018	2019
Heroin	15-24	88	87	105	89	94	83	52
	25-34	173	212	240	296	305	275	193
	35-44	122	166	210	258	250	248	214
	45-54	131	150	173	236	298	237	240
	55-64	63	87	106	147	213	183	190
	65-74	*	*	10	14	25	23	47
	75-84					*		*
Other Opioids*	01-04		*	*			*	
	05-14			*	*	*	*	
	15-24	64	43	65	116	144	144	104
	25-34	136	118	132	327	421	465	405
	35-44	109	135	144	316	378	435	461
	45-54	146	147	180	326	399	440	472
	55-64	89	96	132	232	289	338	380
	65-74	12	11	22	27	59	65	80
	75-84	*	*	*	*	*	*	*
	85+	*	*	*	*		*	*

70,980

Overdose Death Up 4.6% from previous year

50,042

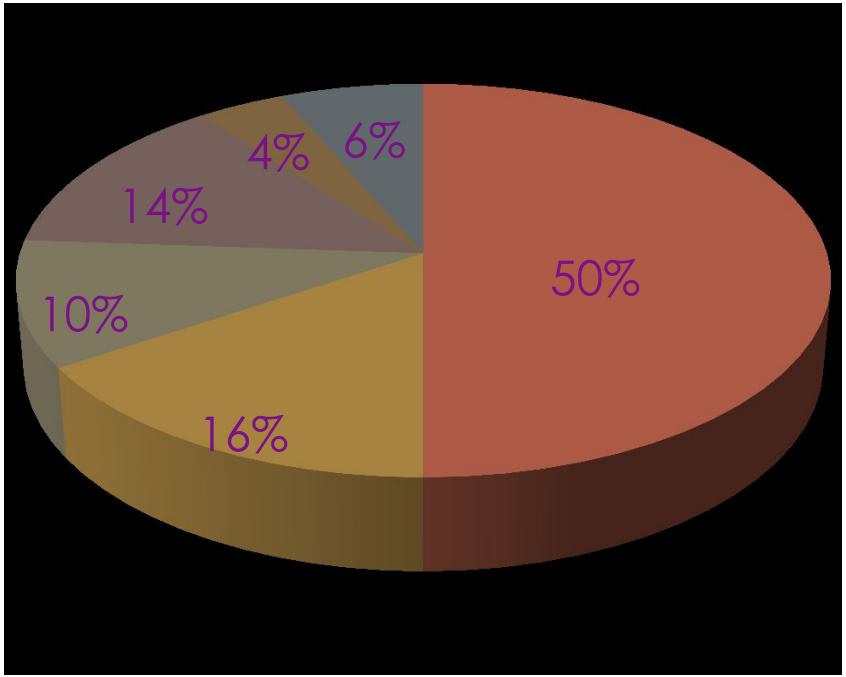
Over 70% are opioid-related overdoses.

Source: National Institute on Drug Abuse

THE SCOPE OF THE PROBLEM

Lesson 1

YOUTH OPIOID USE



- Obtained free from friend or relative
- Prescribed by one doctor
- Bought from friend or relative
- Took from friend or relative without asking
- Got from drug dealer or stranger
- Other

Source: http://www.cdc.gov/HomeandRecreationalSafety/images/poisoning/rxbrief/sources_300w.png

SNAPSHOT

- Prescription narcotics are the 4th most commonly misused drugs by teens (after tobacco, alcohol and marijuana)
- Young adults between the ages of 18-25 misuse prescription medications more than any other age group.
- There are more overdose deaths in the US than deaths from car accidents and gun violence.

Source: National Institute on Drug Abuse

239,000

the number of adolescents aged 12-17 who report prescription narcotic misuse.

Source: Substance Abuse and Mental Health Services Administration, 2016

1 out of 8

high school seniors reported non-medical use of prescription opioids

Source: National Institute on Drug Abuse (NIDA)

191 million+

Prescriptions written in 2017

Equals 58.7 prescriptions per 100 people in 2017

Source: Centers for Disease Control and Prevention

ILLINOIS

- The Chicago Metropolitan Area ranked first in the nation for emergency room visits associated with overdose or substance related health concerns.
- However, Illinois ranked first in the US for decrease in treatment — a 52% decrease in just 5 years.
- Illinois disposed of 43,408 pounds of unused prescription drugs in 2017 - which made up 21% of the national total.

Source: State of Illinois Department of Human Services, DEA
The Heroin Crisis and Illinois Treatment in National Perspective of August 2015

STATISTICS

- 80% of people who use heroin began misusing prescription opioids first
- The Midwest experienced a 70% increase in opioid overdoses from July 2016-September 2017
- 16 states experienced a 54% increase in opioid overdoses in their large cities
- In 2018, an estimated 21.2 million people aged 12 or older needed substance use treatment.5 This number translates to about 1 in 13 people who needed treatment
- In 2018, approximately 1.4 percent of people aged 12 or older (3.7 million people) received any substance use treatment in the past year.

Source: SAMHSA 2018 Survey on Drug Use and Health

WHY PEOPLE DON'T CALL 911 DURING AN OVERDOSE

- Fear of engaging with law enforcement
  - Getting arrested
  - Charged with drug possession or drug-induced homicide
- Lack knowledge on overdose or denial an overdose is occurring
- Aware an overdose is occurring but opt to use a home remedy instead
- Calling 911 is estimated to occur only 10-56% of the time

LEGISLATIVE SUPPORT FOR OVERDOSE PREVENTION

Lesson 2

911 GOOD SAMARITAN LAW

Also called “Emergency Medical Services Access Act: Public Act 097-0678”

What does this law do?

The overdose victim and the individual calling for help cannot be charged with possession for small amounts of illegal drugs when calling 911 or taking someone to an emergency room for an overdose.

What is considered a small amount of drugs?

Possession of up to 3 grams or less of heroin or cocaine and less than one gram of methamphetamine would be immune from prosecution.

Are there any drugs that are not covered under this law?

Yes. Marijuana (cannabis) is not covered under this law. If you are in possession of cannabis, this law will not protect you from prosecution. All other drugs are covered under this law, but drug weight restrictions apply.

911 GOOD SAMARITAN LAW

Who gets protection from prosecution? Everyone involved at the scene or just the caller?

Only the caller and the overdosing person receive protection. The law does NOT provide immunity to other individuals at the scene. It does not provide immunity to people who sold or gave the drugs to the overdosing person.

Does the law's immunity apply to an alcohol overdose that involves a minor?

Yes.

Does the law always apply if the person dies from the overdose?

It depends. As long as the caller sought medical attention for the overdosing person in good faith - meaning the 911 call was placed when the person was alive - the caller will still receive immunity from possession charges. However, if the caller is the person who gave or sold the victim the drugs that led to the overdose, the caller could be charged with drug-induced homicide if the person dies. In that case, the fact that the person tried to get medical help may be used by the judge as a condition for getting a shorter sentence.

As of December, 2018, 46 States, plus the District of Columbia currently have 911 Good Samaritan Laws.

ILLINOIS PUBLIC ACT 096-0361

In summary, the law supports the following related to NALOXONE:

- Naloxone administration as a standard tool
- Naloxone use in an emergency/overdose scenario
- Naloxone training for all persons (non-health care professionals)
- Elimination of fear of liability or punishment in the event of use

OPIOIDS, OPIOID USE DISORDER, AND THE BRAIN

Lesson 3

OPIOID USE DISORDERS (OUD)

- "Occurs when the recurrent use causes clinically and functionally significant impairment, such as health problems, disability, and failure to meet major responsibilities at work, school, or home." (SAMHSA)

- Symptoms:

  - Strong desire for opioids or unsuccessful efforts to cut down use
  - Inability to control or reduce use
  - Continued use despite interference with major obligations or social functioning
  - Important social, recreational, or occupational activities are given up or reduced due to use
  - Use of larger amounts over time
  - Recurrent opioid use in situations that are physically hazardous
  - Continued use despite knowledge of having physical or psychological problems that is likely caused or exacerbated by opioids
  - Craving or experiencing a strong urge to use opioids
  - Development of tolerance
  - Spending a great deal of time to obtain and use opioids
  - Withdrawal symptoms that occur after stopping or reducing use, such as negative mood, nausea or vomiting, muscle aches, diarrhea, fever, and insomnia.

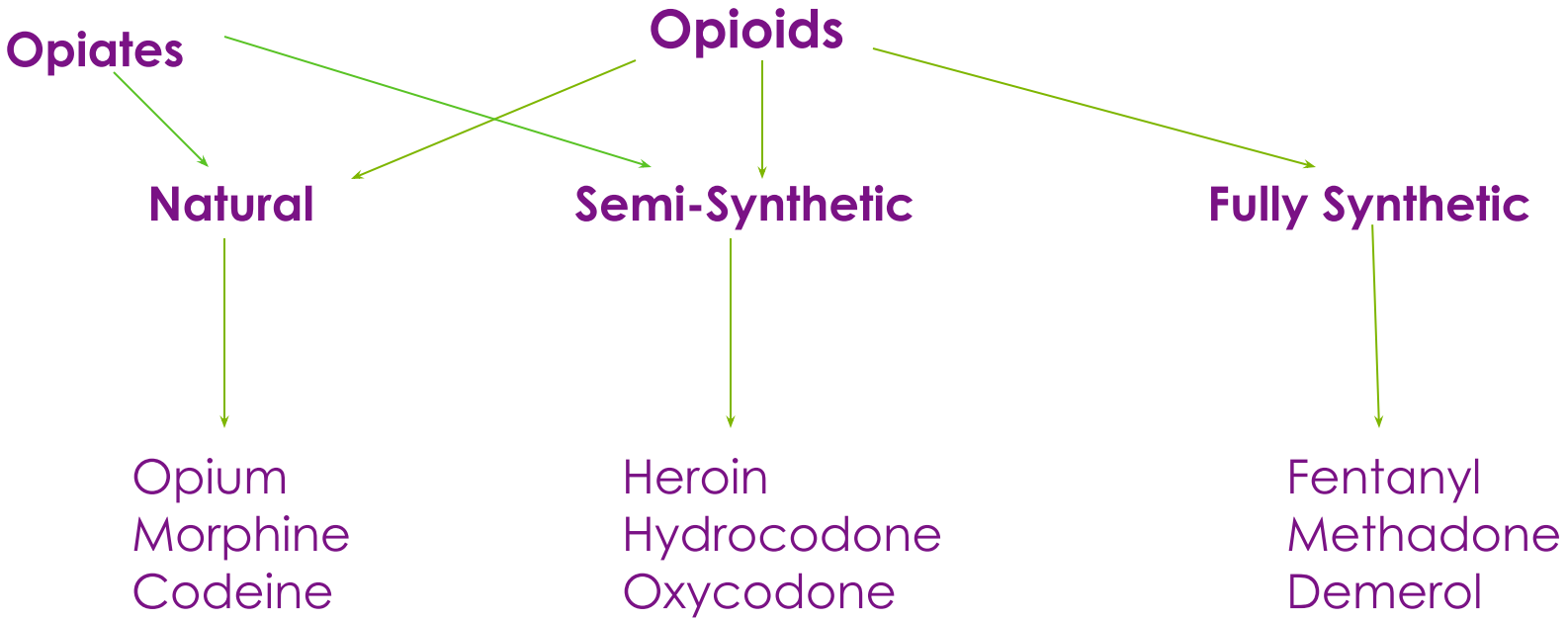
Source: American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders-5*

WHY DO PEOPLE TAKE DRUGS?

- INITIALLY: TO FEEL GOOD ("Liking")
  - To have novel feelings, sensations and experiences, and to share them
  - To withdraw from problems or escape emotional and/or physical pain.
  - To self medicate anxiety, depression, or hopelessness
  - To follow advice of a physician who prescribes an opioid to control pain. 8% of people who ingest an opioid will go on to become dependent after one dose.
- EVENTUALLY: TO AVOID WITHDRAWAL ("Wanting")

OPIOID BASICS

- Opioids are sedative narcotics
- Opioids are used primarily in medicine to treat pain
- Opioids may induce euphoria; some users feel warm, drowsy, and content
- There are non-prescription opioids (ie. Heroin) as well as prescription opioids.
- Opioids vary in duration of action and time to metabolize out
- Duration of action and potency are influenced by means of ingestion
- Opioids are depressants and at high doses or blood levels can suppress the urge to breathe.


Opiates
Opioids
Natural
Semi-Synthetic
Fully Synthetic
Opium
Morphine
Codeine
Heroin
Hydrocodone
Oxycodone
Fentanyl
Methadone
Demerol

OPIOID BASICS

Opioids vary in duration of action. Potency refers to the magnitude of effect. This varies based on drug type, method of ingestion and quantity used.

Drug	Duration	Potency
Methadone	24hr	++++
Heroin	6-8hrs	+++++
Oxycontin	3-6hrs	+++++
Codeine	3-4hrs	+
Demerol	2-4hrs	++
Morphine	3-6hrs	+++
Fentanyl	2-4hrs	++++++++++ ++++++++++

FENTANYL FACTS

- Fentanyl is a synthetic opioid 50-100 times more potent than morphine
- Most fentanyl is illegally manufactured
- Increases in overdose have been associated with synthetic opioids, primarily fentanyl
- Fentanyl analogs: acetylfentanyl, furanylfentanyl, and carfentanil
  - More or less stronger than fentanyl
- Fentanyl can be mixed into other drugs like heroin and cocaine or pressed into counterfeit pills.
- In 2016, fentanyl was responsible for almost 50% or 19,413 of the opioid-related deaths

Source: National Institute on Substance Abuse
Centers for Disease Control and Prevention

HOW DO OPIOIDS AFFECT THE BRAIN & THE BODY?

- Opioids attach to specific proteins called opioid receptors. They reduce the perception of pain, but not pain itself.
- Opioids can produce drowsiness, mental confusion, nausea, constipation, and can suppress respiration causing an overdose.
- Opioids affect the brain's reward region, creating a sense of euphoria.

DEPENDENCE VS TOLERANCE

Dependence:

The need to continue ingesting a drug to avoid withdrawal and loss of desired effect

- Beta Blockers to Control Blood Pressure
- Prescription Opioids and Heroin

Tolerance:

A) The need to take increasingly higher quantities of a drug to achieve the same effect

-OR-

B) Taking the same dose of a drug for a long time leads to a diminished effect

BEHAVIORS ASSOCIATED WITH SUBSTANCE USE DISORDER, DEPENDENCE, AND TOLERANCE

- Taking medications more frequently or at higher doses than prescribed
- Compulsive drug seeking and use despite harmful consequences
- Ingesting drugs in ways other than directed, such as crushing, snorting, or injecting
- Frequent reports of lost or stolen prescriptions
- Doctor shopping
- Using multiple pharmacies

SUBSTANCE USE DISORDER RISK FACTORS

- Genetics - 50-70% of opioid use disorder is hereditary
- Family history
- Chemical imbalance
- Underlying mental health disorders
- Medical conditions and/or hormonal changes
- Illness that is life threatening, chronic, or associated with pain
- Traumatic Brain injury

SUBSTANCE USE DISORDER RISK FACTORS

- Environment
- Biology
- Learned behavior
- Exposure to stressful life events/abuse/trauma
- Availability of the drug
- Drug Characteristics
  - Duration of Action
  - Potency
  - Means and frequency of Ingestion

CO-OCCURRING DISORDERS AND SUBSTANCE USE DISORDERS

- Drug use can cause a person to experience one or more symptoms of another mental disorder
  - Ex. The increased risk of psychosis in some people who use cannabis has been offered as evidence for this possibility
- A mental disorder can lead to a substance use or a substance use disorder
  - Individuals with mental disorders may use drugs as a form of self-medication
- Substance use or a substance use disorder can lead to a mental disorder.

CO-OCCURRING DISORDERS

- 7.9 million adults in the United States had co-occurring disorders in 2017.
- People with mental health disorders are more likely than people without mental health disorders to experience an alcohol or substance use disorder.
- Difficult to diagnose due to:
  - Complexity of symptoms
  - One disorder is treated, while the other remains untreated
  - Both mental/substance use disorders can have biological, psychological, and social components.
  - Inadequate provider training or screening
  - An overlap of symptoms
  - Other health issues need to be addressed first.
- The consequences of undiagnosed, untreated, or undertreated co-occurring disorders can lead to a higher likelihood of experiencing homelessness, incarceration, medical illnesses, suicide, or even early death.
- People with co-occurring disorders are best served through integrated treatment where practitioners can address mental and substance use disorders at the same time, often lowering costs and creating better outcomes.

Source: SAMHSA

CO-OCCURRING DISORDERS

Points to Remember

- Comorbidity describes two or more conditions appearing in a person. The conditions can occur at the same time or one right after the other.
- Comorbid substance use disorder and mental illnesses are common, with about half of people who have one condition also having the other.
- Substance use disorders and mental illnesses have many of the same risk factors. Additionally, having a mental illness may predispose someone to develop a substance use disorder and vice versa.
- Treatment for comorbid illnesses should focus on both mental illness and substance use disorders together, rather than one or the other.
- Effective behavioral treatments and medication exist to treat mental illnesses and addiction.

Source: SAMHSA

Take a Break!

HARM REDUCTION

Lesson 4

WHAT IS HARM REDUCTION?

WHAT DOES HARM REDUCTION LOOK LIKE IN SUBSTANCE USE?

- Disposing unused medication
- Medication lock box
- Fentanyl test strips
- Safe injection supplies
- Rotating veins
- Sharp containers
- Naloxone

LIVE 4 LALI


LIVE 4 LALI
Mobile Outreach Project
Text or Call 224-297-4393
To Find Us, Donate or Volunteer
Visit Live4Lali.org

Services Offered

Safety/Supplies

Immediately:

- Naloxone/NARCAN
- Fentanyl test strips
- Needle exchange/syringe access
- Safe using equipment for all modes of administration
- Tangible safety-based education
- Safe sex supplies
- Beverages, food, toiletries, etc.

Mid-2020:

- HIV/Hep Testing
- Basic medical evaluation

Support/Care Access

Immediately:

- Peer-driven CBT/REBT and Motivational Interviewing
- Case management
- Linkage to care and ancillary services

Mid-2020:

- Counseling
- Transportation
- Insurance registration
- Voter registration

FENTANYL TEST STRIPS

OPIOID OVERDOSE RISKS

- Previous experience of non-fatal overdose
- Combination of opioids with other sedating and or stimulating drugs (alcohol, benzodiazepines, cocaine, etc.)
- Variation in purity/content of ‘street’ drugs
- Recurrence of disease after prolonged abstinence thus lowering tolerance ie; after long recovery w/o recurrence of disease; immed. after jail/inpatient
    - Most people attempt abstinence without medication assisted treatment; on avg. requires 9 years/4 treatments to enter remission

INCREASED RISK FOR OPIOID OVERDOSE

- Using while alone
- Poor physical health (liver disease, weight loss, smoking, etc.)
- Transient living – new dealers/new product
- Switching to injecting from sniffing or swallowing
- Ingesting opioids for long-term management of chronic cancer or noncancer pain
- Low tolerance, just coming out of jail, treatment, and/or abstinence

When a person survives, it’s because someone was there to respond.

NALOXONE'S ROLE IN OPIOID OVERDOSE

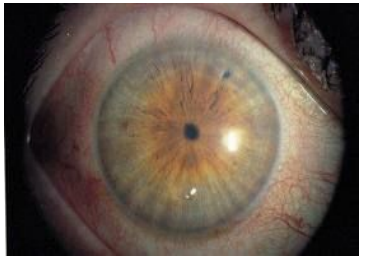
- Between 1996-2014 there was 26,500 reported opioid overdoses reversed by laypeople
- Giving naloxone to patients on opioid therapy for chronic pain was associated with less ER visits
- From 2013-2016 EMS encounters involving naloxone administration increased almost 250%
    - 1,697 encounters during a 3 month span in 2013 → 4,169 encounters in a 3 month span in 2016

Source: National Institute on Drug Abuse
State of Illinois Comprehensive Opioid Data Report 2017

RESPONDING TO AN OVERDOSE

Lesson 5

SIGNS OF OPIOID INTOXICATION

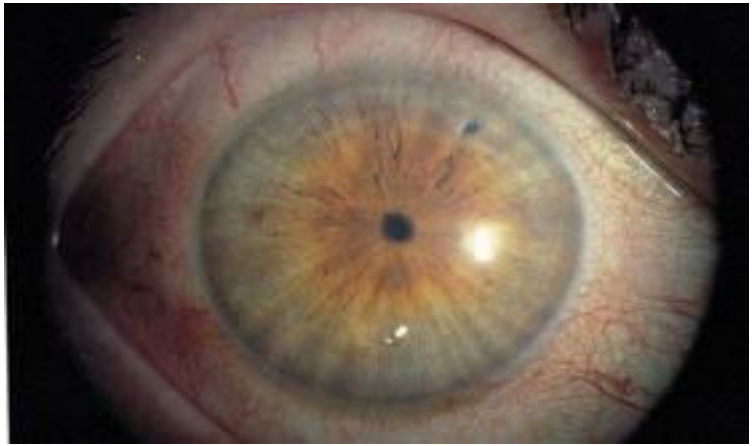


- Pinpoint Pupils
- Nodding (but arousable)
- Sleepy, intoxicated, but breathing (8 or more times per minute)
- Slurred speech
- Scratching skin

NEXT STEPS: Stimulate & Observe

SIGNS OF OPIOID OVERDOSE

- Pinpoint Pupils
- Not arousable (does not respond to sternal rub or painful stimuli)
- Breathing slow or stopped
- Choking/gurgling/snoring sounds
- Slow, erratic or no heartbeat
- Cold or clammy skin
- Blue lips (on lighter pigmented skin) or nail beds



NEXT STEPS: Rescue Breaths & Administer Narcan

NALOXONE / NARCAN

- Referred to as the opioid antagonist, opioid overdose antidote, opioid reversal medication
- *Temporarily* allows an overdose victim to breathe normally.
    - Onset of action: 0-3 minutes
    - Duration of effect: 30-60 min
- Counteracts life-threatening effect of opioids to suppress drive for breathing initiated by the brainstem. Dose can be repeated.
- Will not make a person feel high. Naloxone can neither be misused nor cause overdose.
- Is only effective for ingested opioids. Shows no benefit for other drugs
- Will have zero effect if no opioids are ingested.

RESPONDING TO OPIOID OVERDOSE

"Scare me"

Stimulation
Call 911
Airway
Rescue breathing
Evaluate the situation

Mucosal-Nasal Injection
or Muscular Injection
Evaluate again

Step 1: Stimulate

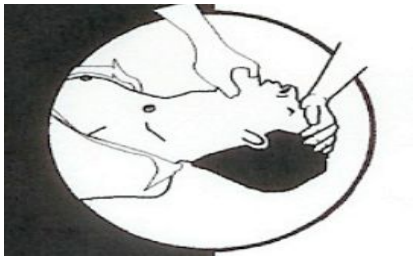
Can you wake the individual?
Do they respond to sternal rub?

Step 2: Communicate with EMS

If no response, delirious, or altered state communicate with EMS for support and assess for pulse

Step 3: Airway & Rescue Breathing

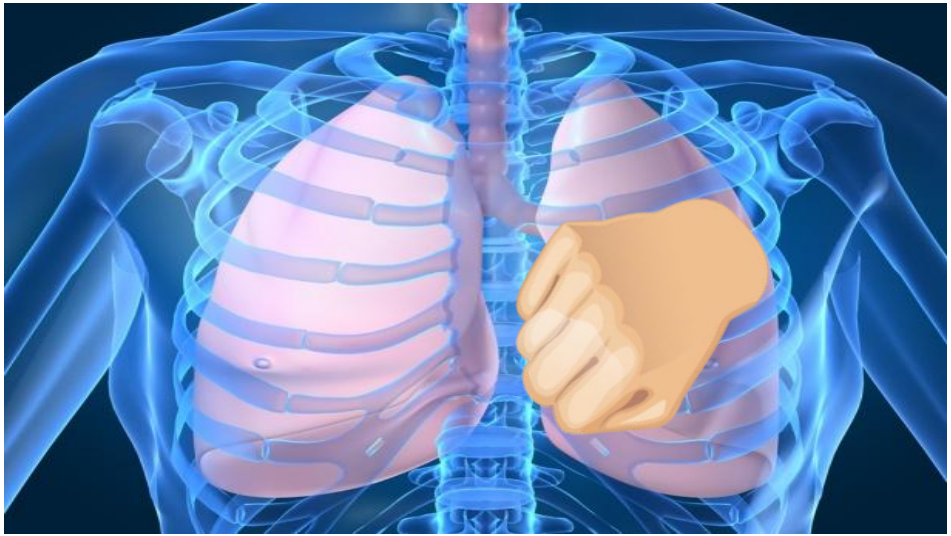
If reduced or no breathing, perform rescue breathing.



STEP 1: STIMULATE THE PERSON

STERNAL RUB

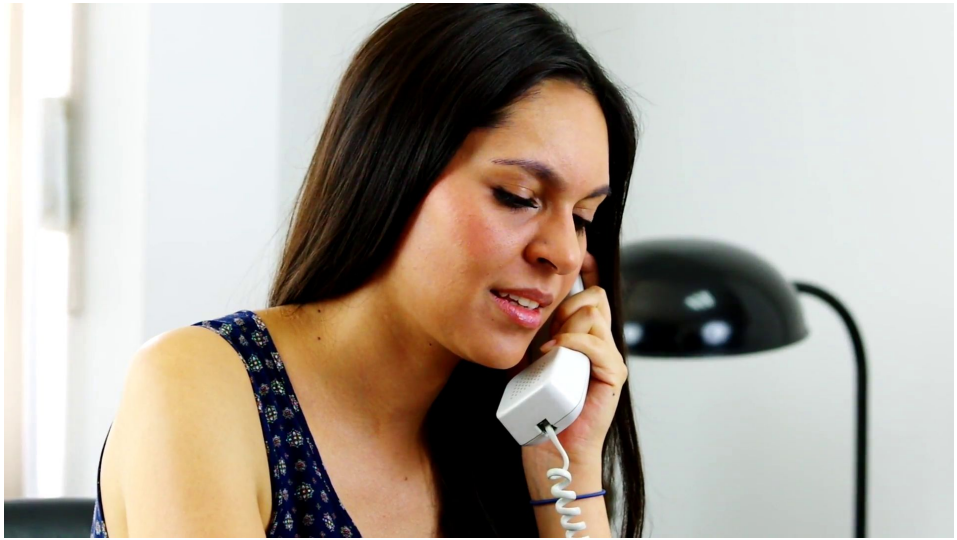
- Rub your knuckles on the person's sternum and under the nose. Do not punch, kick or slap them



STEP 2: IF NO RESPONSE

If no response to painful stimulation:

- Call 911
- Try to remain calm



STEP 3: RESCUE BREATHING

If breathing is reduced (less than 8x per minute) or non-existent perform rescue breathing:

1. Roll the victim on their back
2. Open the victim's mouth check to see that there is nothing that can block the airway. If any food or debris is inside the mouth, remove it with your finger.
3. Place hand under the victim's chin and lift to open the airway. Be ready to turn the head to protect the airway if they vomit.
4. Perform 2 rescue breaths

STEP 4: NALOXONE INTERVENTION

Continue the rescue breathing pattern until…

- The victim starts to breathe on their own

If rescue breathing unsuccessful…

- Administer Naloxone
- Continue rescue breathing, reassess, administer additional Naloxone dose - continue until patient responds, or EMS arrives.

AFTER ADMINISTERING NALOXONE

- Naloxone takes effect within 3 minutes.
- After injection, or nasal spray, continue rescue breathing
- If there is no change in about 30 seconds, administer another dose of naloxone and continue to breathe for the person.
- If the second dose of naloxone does not revive them, something else may be wrong—either it has been too long and the heart has already stopped, there are no opioids in their system, non-opioid drugs are the primary cause of overdose (even if they have also taken opioids), or the opioids are unusually strong and require more naloxone (can happen with Fentanyl, for example).
- Continue administering naloxone and giving rescue breaths untill EMS arrives

STEP 5: EVALUATE AND SUPPORT

Recovery position, monitor, and support

Lay them in the recovery position

STEP 5: EVALUATE AND SUPPORT

Coming off naloxone

- Support is needed!
- Using again will make the overdose worse when the naloxone wears off.
- If you can, support the person as they deal with the discomfort, the naloxone will wear off and the withdrawal will fade.
- Find out what the individual took. Opioids that last longer have longer lasting overdoses. (ie. heroin may last 6-8 hours).

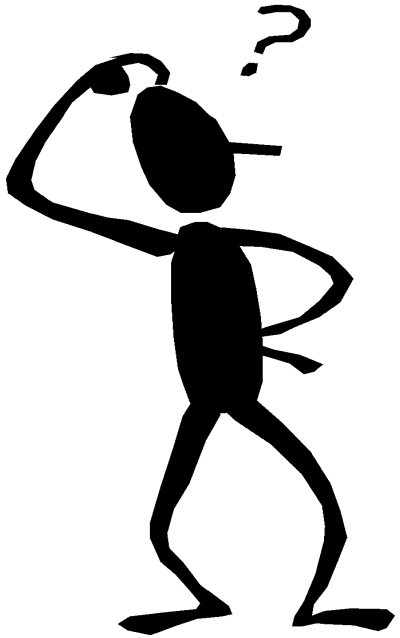
REVIEW OF STEPS TO TAKE

1. Check for breathing;
2. Provide stimulation (sternal rub) to arouse a person;
3. If person does not respond, and is not breathing, provide rescue breathing;
4. Administer naloxone and monitor for a response;
5. Provide ongoing support and monitoring to the individual who has overdosed;
6. Other interventions as indicated; and
7. Completing naloxone administration records.

PROPER STORAGE

- Naloxone Auto-injectors must be kept between 59 and 86 degrees (do not leave it in a car, especially during hot or cold seasons)
  - Narcan Nasal Spray must be kept between 59-77 degrees
  - Naloxone vials must be kept between 68-77 degrees
- Naloxone is light sensitive, keep out of direct light
- As with any medications, KEEP AWAY FROM CHILDREN
- If kept in perfect conditions, naloxone will be effective beyond the expiration date.

HOW TO USE DIFFERENT TYPES OF NALOXONE



Questions?