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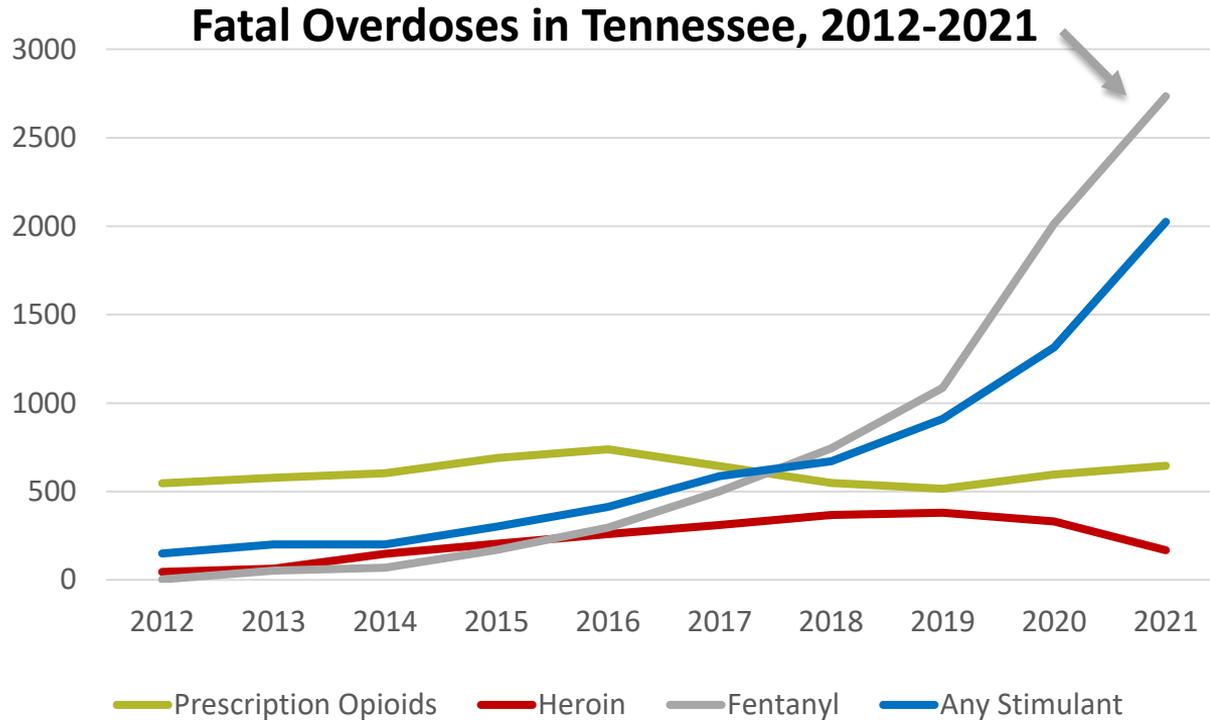
**Mental Health &
Substance Abuse Services**

Opioids and Overdose Prevention Training

Suzanne Angel

Overdose Prevention Specialist (ROPS), Region 3N

Understanding Overdoses in Tennessee



- From 2012 to 2017, prescription opioids were involved in most of the overdose deaths in TN.
- Deaths due to prescription opioids declined from 2016 to 2019 while deaths due to illicit substances like heroin, fentanyl, and stimulants ***increased dramatically.***
- In 2021, ***almost 3 out of 4*** overdose deaths involve fentanyl.

Understanding Overdoses in Tennessee

In 2021, **3,814** Tennesseans died of a drug overdose, representing a 26% increase from 2020.

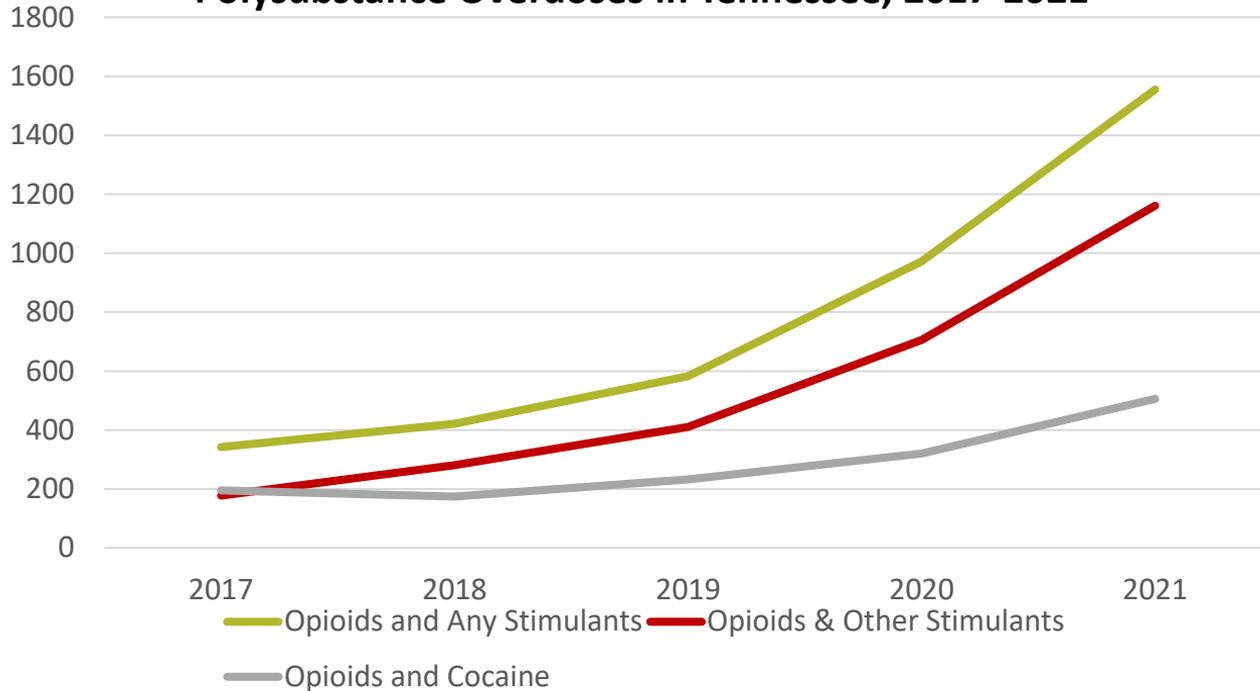
- **2,734** deaths involved fentanyl, an **36%** increase from 2020
- **2,025** deaths involved a stimulant, a **54%** increase from 2020
- **167** deaths involved heroin, a **50% decrease** from 2020
- **645** deaths involved prescription pain relievers, an **8%** increase from 2020

**Please keep in mind that an overdose may involve multiple substances and that a single death may be counted in multiple drug categories.*



Understanding Overdoses in Tennessee

Polysubstance Overdoses in Tennessee, 2017-2021



- A polysubstance overdose involves multiple substances.
- In 2017, **19%** of overdose deaths involved both an opioid and a stimulant.
- In 2021, **94%** of stimulant-involved deaths involved in fentanyl.
- In 2021, **41%** of overdose deaths involved an opioid and stimulant.

The Science of Addiction

Addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, and the environment, and an individual's life experiences.

Just as cardiovascular disease damages the heart, addiction damages the brain, making it difficult to function as it should.

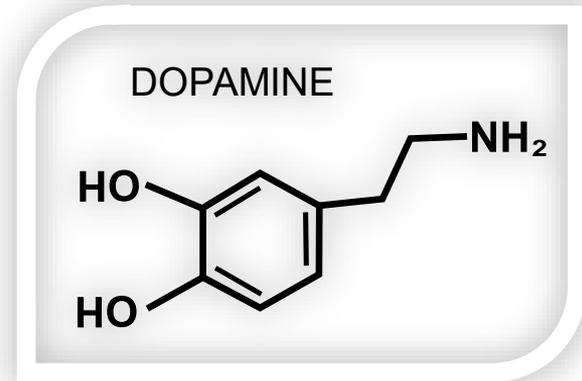


The Science of Addiction

Addiction has been found to have numerous root causes. One of the potential causes of addiction is the brain's response to dopamine.

Dopamine is a neurotransmitter made in the brain that plays a role in how we feel pleasure and is important for thinking and planning.

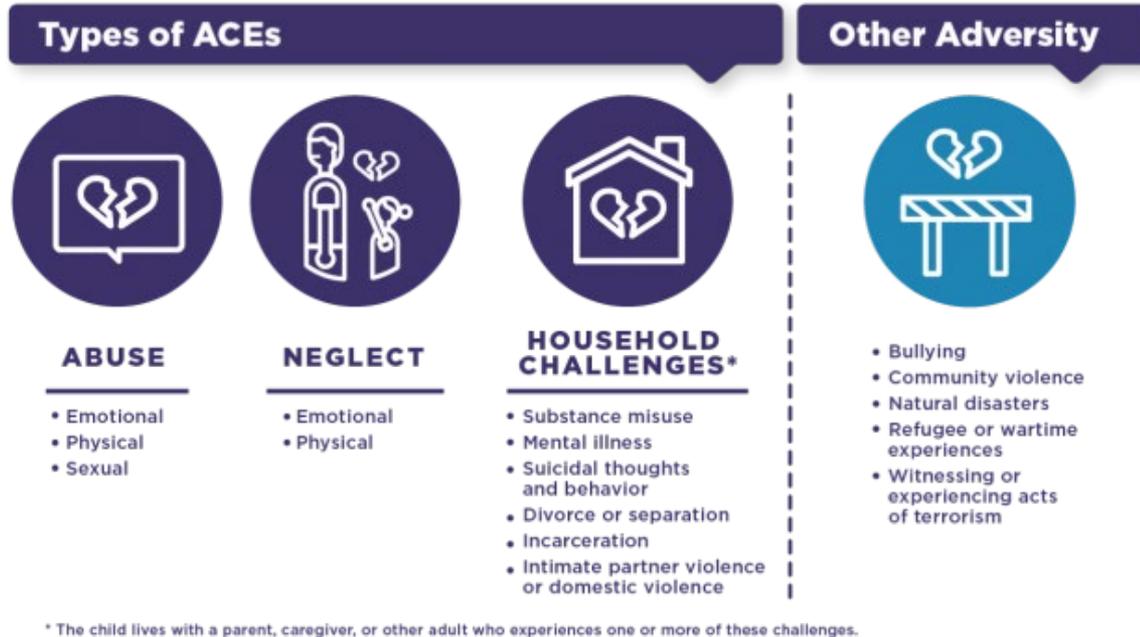
- When a substance is consumed, there is a fast increase in the amount of dopamine created satisfying the brain's reward center and making the person feel pleasure.
- When a substance is consumed repeatedly, the brain begins to require a higher amount of dopamine to achieve the same feeling.
- At the same time, substances make your body less able to produce dopamine naturally leading to lows when an individual does not use substances.



The Science of Addiction

Another factor that may play a role in addiction are **Adverse Childhood Experiences (ACEs)**.

- Affect brain development
- ACEs are common
 - 6 out of 10 US adults have 1 ACE
 - 1 out of 8 have four or more ACEs
- Increase vulnerability to lifetime health outcomes
 - 5+ ACEs: **7-10x more likely** to use illicit substances
 - 6+ ACEs: **46x more likely** to inject substances



The Science of Addiction

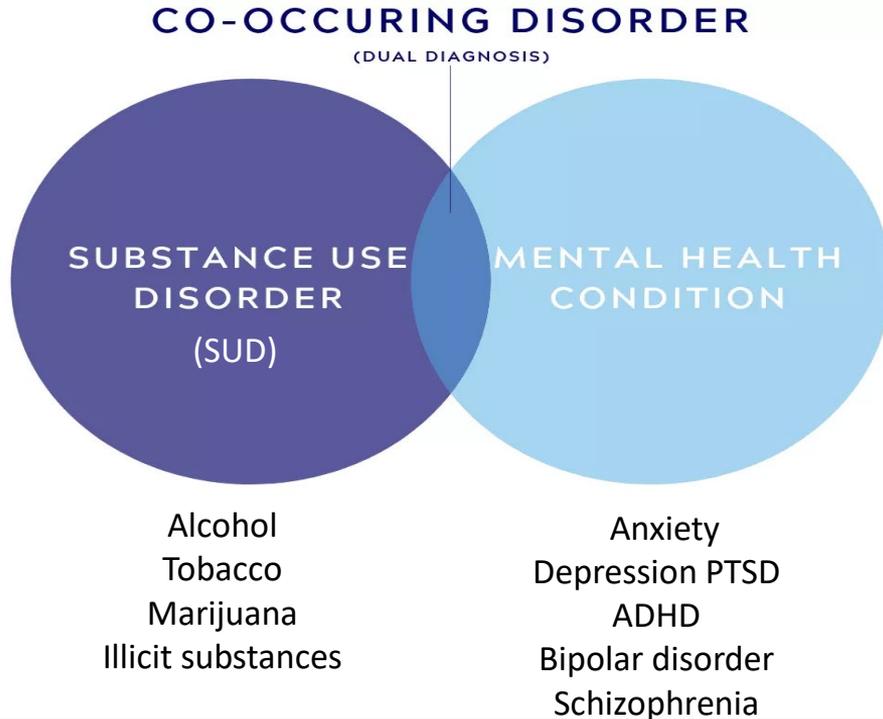
Another factor that may play a role in addiction are **genetics and family history**.

- Science is working to identify genes that increase vulnerability to addiction
- A family history of substance use/misuse increases the vulnerability to addiction



The Science of Addiction

Other factors that may play a role in addiction are **co-occurring mental health conditions**.



- 39% of people with SUD also have a mental health condition
- Share common vulnerabilities
- Self medicating a mental health condition can lead to or contribute to a SUD

The Science of Addiction

Other factors that may play a role in addiction are **community-level factors**.

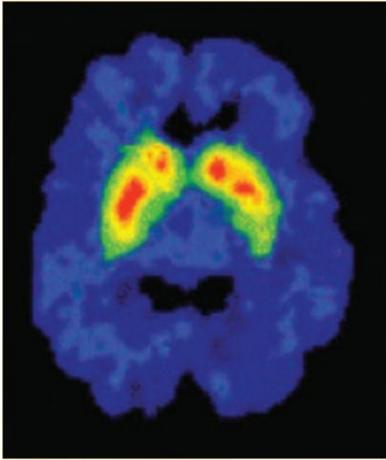
Community-level factors can increase or decrease vulnerability for substance misuse.



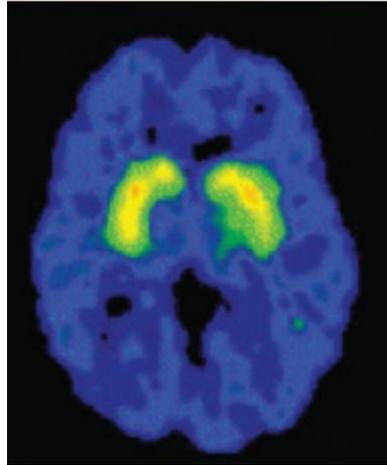
The Science of Addiction

Substance Use AND recovery change the brain

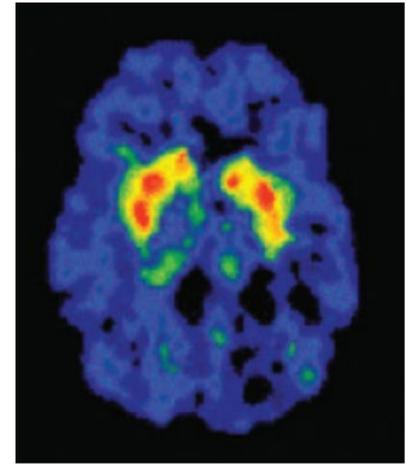
A person who doesn't
use substances



A person who used methamphetamine



1 month of abstinence



14 months of abstinence

Reducing Stigma

Substance use falls on a continuum

- Abstinence/low risk  chronic dependence
- Relapse **does not equal** a moral failure or a failure of treatment
 - It is a dopamine (chemical) response in the brain
- **40%-60%** will relapse ***at least*** once
 - Other chronic diseases: 50%-70% with high blood pressure experience symptoms each year that require medical attention

Beware of **unintentional personal bias**

Recognize addiction is often connected to **trauma**

Language Matters

Do away with labels and use “person first” language

(Person with substance use disorder **not** Addict)

- Experiencing stigma can reduce a person’s willingness to seek treatment, take other actions to reduce harm, or ask for help
- Stigma among medical and social services reduces the quality of care

 <h3>Say this...</h3>	<h3>...Not That</h3> 
<ul style="list-style-type: none">• Person with a Substance Use Disorder• Substance Detected/ Not Detected in toxicology• Sterile or used needles• Not using substances• Person living in recovery	<ul style="list-style-type: none">• Not Addict or Junkie• Not clean or dirty screen • Not clean or dirty needles• Not clean• Not ex-addict

Harm Reduction

Harm Reduction is a way of **preventing disease and promoting health** that **meets people where they are.**

Not everyone is **ready or able to stop substance use**; therefore, **scientifically proven** ways of decreasing risks are **essential.**

(e.g., Medication Assisted Treatment (MAT), Naloxone, Syringe Service Programs)

Fentanyl

- Fentanyl is very strong synthetic (lab made) opioid
 - 50x stronger than heroin
 - 100x stronger than morphine
- Types of fentanyl
 - Pharmaceutical/medical fentanyl: used in pain relief
 - Illicitly manufactured fentanyl (illegal): used for heroin-like effect/getting high
- The rise in fentanyl-involved overdose deaths is linked with **illicit fentanyl**



A deadly dose of heroin, fentanyl and carfentanyl.

Fentanyl and Skin

According to the American College of Medical Toxicology and the American Academy of Clinical Toxicology:

- Powder (crystalline) fentanyl **can not pass** through your skin.
 - This includes fentanyl analogs such as carfentanil and flourofentanyl.
- Wet objects do not pose an increased risk for overdose caused by casual exposure.
 - Dissolving the powder in a liquid does not change the molecule size.
- Wounds or cuts must be open and visible for fentanyl to be able to enter the bloodstream through them.



The size of a particle of fentanyl

is similar to a



Grain of pollen

Grain of sand



Particle of dust

Our skin protects us from all of these!

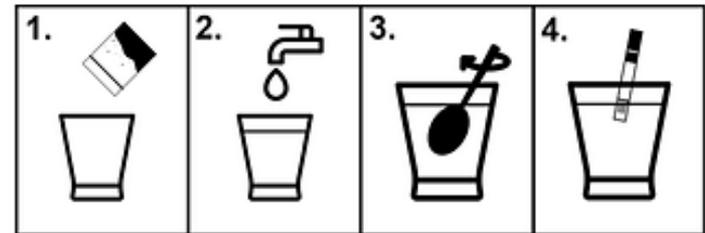
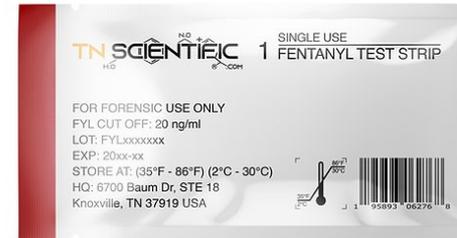
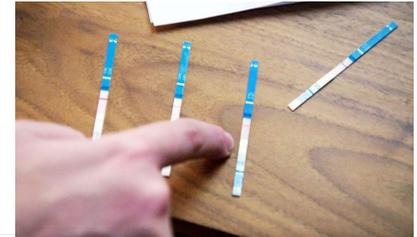
Vapes and Marijuana?

- The FDA does not regulate most vaping products.
- Marijuana products are not reviewed by the FDA.
- Unless the FDA approves a product, you can't know what's in a product, like vapes or marijuana.
 - It is possible to put anything into a vape product or marijuana, including fentanyl.
 - There have been very few documented/confirmed lab cases nationwide of fentanyl in vapes.
 - Recent cases in TN appear to be due to powdered substances on the vape, not in the “vape juice”



Fentanyl Test Strips

- Small strips of paper that can detect the presence of fentanyl/fentanyl analogs in a substance
- Became legal (with guardrails) in TN in 2022
- Quick and easy to use
- Used before substance use
- Highly correlated with behavior change
 - More than 70% of people whose FTS showed fentanyl changed their behavior



What is an Overdose?

An overdose happens when a toxic amount of a drug, or combination of drugs, overwhelms the body.

- Overdoses can look different based on the substance(s) and/or drug(s) involved
- People can overdose on all types of drugs
 - Prescription medications (like Hydrocodone or Adderall)
 - Over-the-counter medications (like Tylenol or Benadryl)
 - Illicit drugs (like Heroin, Fentanyl, or Methamphetamine)

Overdose deaths are preventable with the right tools.

Tools for Preventing Overdoses

1. Knowing the risk factors
2. Recognizing the signs and symptoms of different drug overdoses
 - Opioid overdose
 - Stimulant overdose
3. Learning how to respond to a drug overdose



Risk Factors for An Opioid Overdose

Mixing Substances

- Mixing illicit and prescription opioids
- Mixing opioids with alcohol
- Mixing opioids with benzodiazepines (Xanax, Valium, Ativan)
- Mixing opioids with stimulants

Using after a period of no use

- Jail
- Detox Program
- Treatment facility/Rehab
- Probation/Parole

**Counterfeit
pills or
unknown
substances**

History of Substance Misuse/Use

Chronic Illness

Thoughts of Suicide

Co-occurring Mental Health Condition

Using While Alone

Previous Overdose

Opioid Overdoses: Common Opioids

- Common opioids include illicit drugs as well as prescription medications
- Both prescription and illicit opioids can lead to an overdose

Opioid	Street Names
Codeine	Schoolboy, T-3s
Morphine (Avinza [®] , Kadian [®] , MS Contin [®])	M, Miss Emma, Monkey, White Stuff
Oxycodone (OxyContin [®] , Percocet [®])	Ox, Oxys, Oxycotton, Kicker, Hillbilly Heroin
Oxymorphone (Opana [®])	Blue Heaven, Octagons, Oranges, Pink, Pink Heaven, Stop Signs
Hydrocodone	Hydro, Norco, Vikes, Watsons, Loritab, Vicodin
Hydromorphone (Dilaudid [®] , Exalgo [®])	Dill, Dust, Footballs, D, Bid-D, M-2, M-80s, Crazy 8s, Super 8s, Dillydad
Fentanyl (Actiq [®] , Duragesic [®] , Fentora [®])	Apache, China Girl, China White, Goodfella, TNT
Heroin	Dope, Smack, Horse, China White, Hero, Snow

Opioid Overdoses: Signs and Symptoms

Opioid overdoses can happen slowly, over the course of several hours or more quickly, particularly if fentanyl is involved.

Signs an Opioid Overdose MAY Occur

- Small pupils
- Nodding Out
- Slurred Speech
- Scratching a lot

**Still responds to outside stimulus **

Signs of an opioid overdose include:

- Unresponsive to stimulus (unconscious)
- Breathing is very slow and shallow, erratic or has stopped
- Pulse is slow, erratic or undetectable
- Choking sounds/snore-like gurgling noise
- Vomiting
- Body is limp
- Changes in skin color/fingernails
 - Lighter skin: turns bluish purple
 - Darker skin: turns grayish or ashen

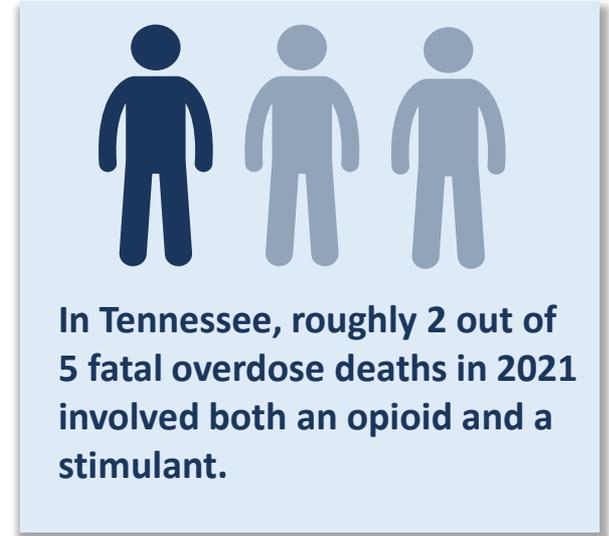
Emerging Trend: Other Substances

- Overdoses may also be caused or contributed by other substances that are not opioids or stimulants.
- Xylazine is an emerging substance in Tennessee
 - Used as a veterinary tranquilizer
 - Does not respond to naloxone
 - Commonly found with other substances including fentanyl, methamphetamine, cocaine and benzodiazepines (such as Xanax)

Overdose Involving Multiple Substances

When multiple substances are involved, it can be hard to know when someone is having an overdose.

In Tennessee, overdoses **involving multiple substances** are common. The signs and symptoms of these overdoses may look different from what was previously described.



If an opioid or fentanyl could be involved, administer naloxone!

Responding to an Overdose: Assess Situation

Assess the situation

Is the person responsive?
Can they communicate?

Assess your personal safety

Do you feel safe approaching
the person without
endangering yourself?

Maintaining Personal Safety

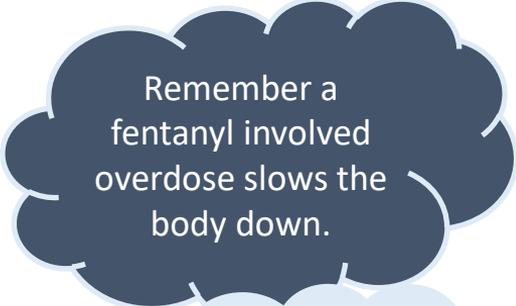
Fentanyl poisoning/overdose by someone responding to an overdose is extremely rare.

- *Fentanyl does not easily absorb through the skin unless there is an open wound*
- *Unless it is intentionally put in the air (for example, thrown) the quantity in the air is unlikely to cause an overdose*

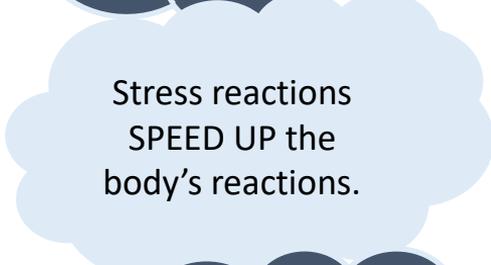
Naloxone can be administered safely in the presence of fentanyl with basic precautions.

- Use gloves (if available provide extra caution)
- Wash your hands with soap and water (not hand sanitizer)
- Do not eat, drink, smoke or touch your face before washing your hands

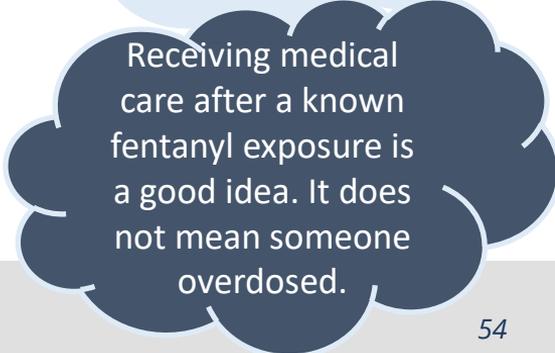
Do not let fear stop you from saving a life!



Remember a fentanyl involved overdose slows the body down.



Stress reactions SPEED UP the body's reactions.



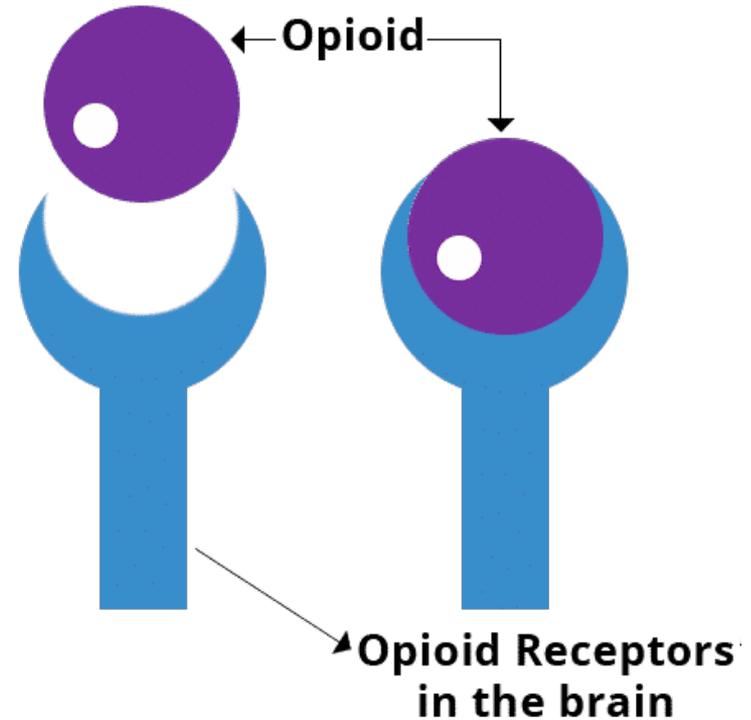
Receiving medical care after a known fentanyl exposure is a good idea. It does not mean someone overdosed.

Opioid Overdoses: What is an opioid?

“Opioids” is a term for medications and drugs that bind to the opioid receptors in the brain.

Opioids affect the brain’s **regulation of breathing**

Overdoses occur when too many opioids attach, causing **breathing to stop**



Responding to an Overdose: Naloxone

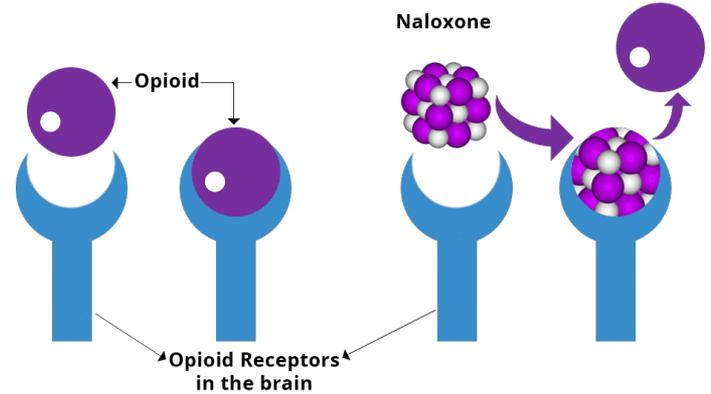
Administering naloxone is the **most common and effective** way to reverse an opioid overdose

Naloxone reverses the effects of opioids by binding to the opioid receptors more powerfully than opioids

Naloxone knocks the opioid off the receptors temporarily so that breathing can be restored (**30-90 mins**)

Naloxone results in a person going into **temporary withdrawal**

It is **not possible to overdose** on naloxone

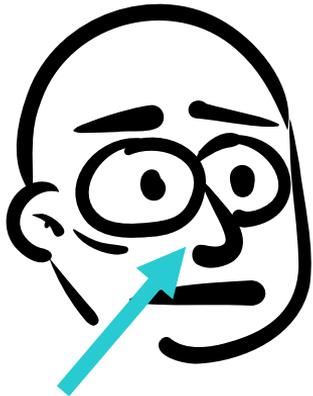


Naloxone restores breathing, but other symptoms **caused by stimulants** and/or **tranquilizers** will not be affected by naloxone and need to be treated by medical professionals, **so call 911 as soon as you suspect an overdose.**

Responding to an Overdose: Naloxone Variations

Intranasal Naloxone

Sprayed directly
in the nose



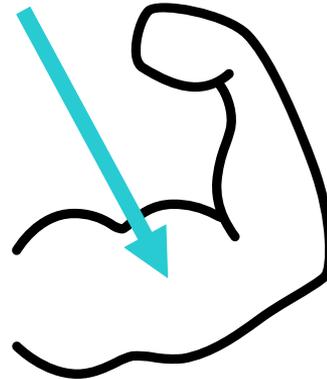
Brand Name:
Narcan©
4mg



Brand Name:
Kloxxado©
*DOUBLE
STRENGTH*

Intramuscular (IM) Naloxone

Inject in the arm
between the elbow and
shoulder



Brand Name: Zimhi

Storing Naloxone

- To be effective, naloxone should be stored
 - In blister pack until ready to use (intranasal)
 - At room temperature (between 68 to 77 degrees F)
 - Avoid temperature extremes (Do not store in a car)
 - Protected from light
 - Avoid extreme temperatures
- Monitor expiration date
 - 24-36 month shelf life depending on product
 - Printed on blister pack (intranasal)
 - Contact ROPS if nearing expiration date

Responding to an Opioid Overdose: Step 1

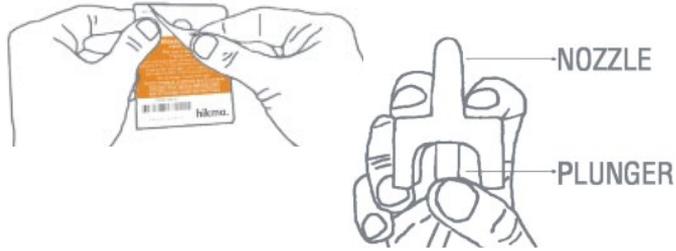
Try to Maintain Responsiveness

- Call the person's name
- Shake the person gently
- Utilize the "sternum rub"
 - Make a fist
 - Use the middle joints of your fingers (not the knuckles)
 - Firmly rub the center of the person's chest to wake them up



Responding to an Opioid Overdose: Step 2

Administer Naloxone



Peel back the pack to remove device.
Hold device with your thumb on the bottom of the plunger and two fingers on the nozzle.

Do NOT prime the device.



Press the plunger firmly to release the dose into the person's nose.



Place and hold the tip of the nozzle in either nostril until your fingers touch the bottom of the recipient's nose.

Responding to an Opioid Overdose: Step 3

Dial 911

- Stay with person until emergency medical services arrive
- Tell 911:
 - Address/location
 - Whether or not breathing has slowed or stopped
 - How much Naloxone you administered (if any)
 - What substances the person took (if you know)

****Steps 2 and 3 can occur in the reverse order, depending on which can be achieved more quickly.****

Responding to an Opioid Overdose: Step 4

Administer Chest Compressions/ CPR

***Chest compressions/CPR should only be done if certified or as instructed by 911 operator!

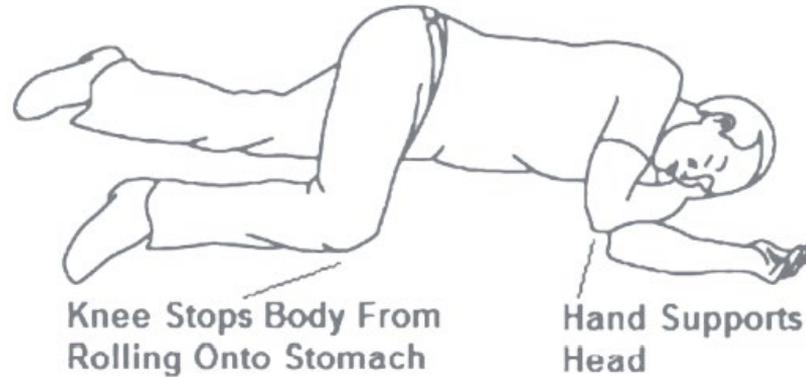
If instructed to give CPR, and you do not feel comfortable giving “rescue breaths,” chest compression-only CPR is better than no CPR.



Responding to an Opioid Overdose: Step 5

Place individual in Recovery Position

- This position will help prevent the person from potentially inhaling vomit



Responding to an Opioid Overdose: Step 6

- Wait 2-3 minutes.
It may be helpful to set a timer on your phone or have a bystander set a timer.
- After 2-3 minutes, if the person is still not breathing and EMS has not arrived, you can give another dose in the other nostril.
- Continue waiting 2-3 minutes and giving another dose until EMS arrives OR person starts breathing again.



Giving doses faster does not work. The medication has to get to the brain and start to work.

After an Overdose

After someone experiences an overdose or someone responds to an overdose, it is important to know the following:

- Your own rights and the rights of the person who experienced the overdose
- How experiencing or responding to an overdose may impact your own mental health

After an Overdose: Protection from Liability

Tennessee Addiction Treatment Act

- Allows the use of naloxone for someone experiencing an opioid overdose
- Provides some legal protections for person who calls for medical attention
- Provides some protection for person experiencing an overdose on their first drug overdose

Tennessee Good Samaritan Act

- Provides protection for individual or agency who administers naloxone in good faith to someone believed to be experiencing an overdose

After an Overdose: Compassion Fatigue and Burnout

Compassion Fatigue:

starts quickly; experiencing signs and symptoms of trauma that didn't happen to you

Burnout

Cumulative/grows over time; associated with emotional exhaustion of workload/stress

Mental/Emotional Symptoms

- Reduced sense of accomplishment, meaning in work
- Reduced productivity
- Self isolation
- Irritability

Physical Symptoms

- Exhaustion
- Difficulty sleeping
- Headaches, stomachaches, digestive issues, chronic pain

Not limited to people in “helping professions”

Substance misuse affects family, friends, and loved ones

After an Overdose: Compassion Fatigue and Burnout

Actions to Take



Practice healthy routines
Eat well, sleep enough, exercise



Find and use support
Find someone to talk to



Take breaks
Take time off or away



Take time to process your experiences
Journaling and meditating are good strategies



Be understanding of yourself
Know that the pain you feel is understandable



Practice healthy boundaries
Know that you are can't do it all



Practice mindfulness
Find a resource that works for you



Nurture your whole self
Including hobbies, relationships and spirituality

Avoid



Working longer and harder



Self medicating



Neglecting your needs & interests



Fall into the habit of complaining to your coworkers

Naloxone Training Assessment

Naloxone Training Assessment

1. What forms of naloxone are available?

- a. Intranasal
- b. Intramuscular
- c. Both A & B
- d. None of these

Naloxone Training Assessment

2. More than one dose of naloxone may be necessary before EMS arrival.

a. True

b. False

Naloxone Training Assessment

3. You should give the naloxone and leave the patient alone.

a. True

b. False

Naloxone Training Assessment

4. When administering intramuscular naloxone, where is the best location to give the injection?

- a. In the chest
- b. In the outer thigh
- c. In the arm
- d. In the stomach

Naloxone Training Assessment

5. How long does naloxone last?

- a. 30-90 minutes
- b. 3 hours
- c. 8 hours
- d. 12 hours

Naloxone Training Assessment

6. Naloxone is an addictive substance.

a. True

b. False

Naloxone Training Assessment

7. How do you determine when someone is overdosing?

- a. The patient is unresponsive even after a sternal rub.
- b. The patient has shallow breathing or is not breathing at all.
- c. Pale, clammy skin.
- d. Blue Skin, especially around the lips and fingernails.
- e. Extremely small, pinpoint pupils.
- f. All of the above.

Naloxone Training Assessment

8. Call 911 as soon as you suspect an overdose.

a. True

b. False

Naloxone Training Assessment

9. Chest compressions or CPR may be necessary.

a. True

b. False

Naloxone Training Assessment

10. What law protects you from civil liability when administering naloxone to someone you suspect is overdosing?

- a. TN Addiction Treatment Act
- b. The Good Samaritan Act
- c. The Overdose Protection Act
- d. None of the Above

Community Resources: Naloxone

In TN, anyone may obtain Naloxone **directly from a pharmacist** without a physician's prescription.

- **Most insurance programs cover or offer a co-pay option**
 - Cost range: \$0-\$150 (depending on insurance)
 - Low/no copay for most with TennCare (up to 2 units per person per month)
 - Can use FSA, HSA or HRA accounts
- **If you are uninsured, you may qualify for CoverRX which is a program that helps with prescription medications, including naloxone.**
- **Getting it from a pharmacy**
 - Major pharmacies: CVS, Walgreens, Rite-Aid, etc.
 - Some local/community pharmacies
 - Also consider pharmacy delivery or by-mail (if you don't want to go into your pharmacy)

The Tennessee Save a Life program (which provides this training) prioritizes naloxone distribution for those at high risk/family members and who do not have other means of accessing naloxone.

Help us know our impact!

Currently, our data tells us that naloxone provided through this grant has reversed **more than 69,000 overdoses** in Tennessee since 2017

- We know this is a conservative estimate as it is only based on reported Naloxone administrations.
- To more accurately capture lives saved, we ask that you complete a brief and anonymous overdose reversal form if you administer naloxone provided through this grant.
 - This data is not reported to law enforcement and is used for the sole purpose of demonstrating how naloxone purchased under this grant is saving lives.
 - You can submit this data at:

<https://bit.ly/reverseOD>

What can YOU do in YOUR community

- Lock up prescription medications
- Drop off unused medication
- Raise awareness in your community/schedule a training
 - Bring this training to your workplace, church/religious group, civic organization or any other interested group
- Continue learning:
 - ACEs, suicide prevention, mental health first aid
- Get involved in your drug-free/prevention coalition
- Know where to find treatment and recovery resources in your community
 - TN Redline: 1-800-889-9789 (call or text)
- Support loved ones in their recovery journey
- Seek out support for yourself if you have a loved one misuses substances
- Advocate for treatment and mental health supports at your workplace (EAP services, health insurance coverage)

Thank you for coming!

Suzanne Angel, ROPS Region 3N

615-489-3168 and Sangel.rops3n@gmail.com

Clay, Cumberland, DeKalb, Fentress, Jackson, Macon, Overton, Pickett, Putnam,
Smith, Van Buren, Warren, and White

To find the ROPS for your area, contact me or visit www.tn.gov/behavioral-health/ROPS



Call or text for mental health, crisis and suicide prevention



Please complete a quick evaluation survey here.



Thank you for coming today!

Suzanne Angel, ROPS Region 3N

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Clay, Cumberland, DeKalb, Fentress, Jackson, Macon, Overton, Pickett, Putnam,
Smith, Van Buren, Warren, and White

Please take a couple minutes to complete the evaluation, so we can keep improving this training. The surveys are completely anonymous so feel free to answer openly and honestly.



Call or text for
mental health,
crisis and suicide
prevention



Text **SAVE** to **30678**

References (by Slide Number)

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