

Fentanyl Awareness

Emergency Response Safety

What is Fentanyl

- A powerful synthetic opioid drug similar to morphine and heroin, first synthesized in 1959
- **50 to 100 times** more potent than morphine
- Can be present in a variety of forms (e.g. powder, tablets, solutions, etc.)
- Fentanyl powder may be white, pink, purple, blue, or green
- **Inhalation** of airborne powder or incidental ingestion is most likely to lead to **harmful** effects



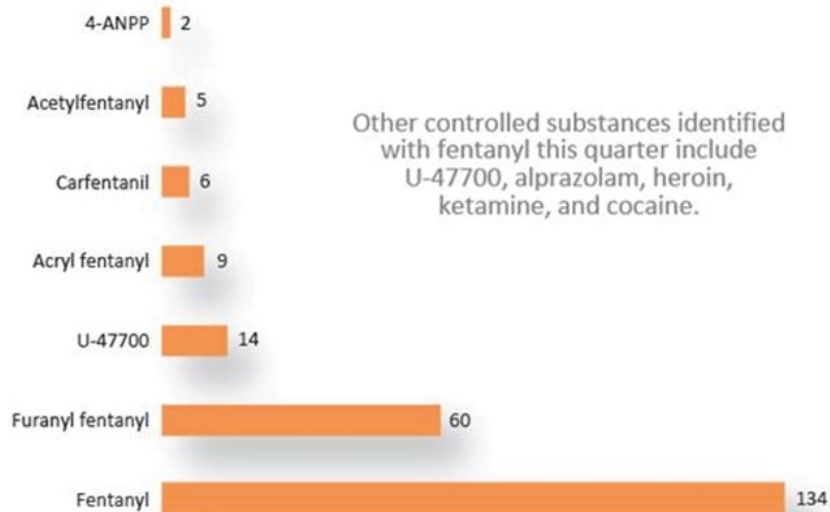
- Hundreds of Fentanyl Analogs, such as: 4-fluoroisobutyryl fentanyl, furanyl-fentanyl, acryl-fentanyl, acetyl-fentanyl, carfentanil, and 3-methylfentanyl (Schedule II).
- Many are even more potent than Fentanyl
- Other synthetic Opioids: AH-7921 and U-47700 (Schedule I)
- Illicit Fentanyl is most commonly found in counterfeit pill form made to look like prescription medications (Oxycodone, Xanax).



Based on 1st quarter 2017
DEA lab analysis:

OPIOIDS/ ANALGESICS

THERE WERE **230** IDENTIFICATIONS OF FENTANYL, FENTANYL-RELATED SUBSTANCES, AND OTHER SYNTHETIC OPIOIDS. FENTANYL ACCOUNTED FOR APPROXIMATELY **58%** OF THE IDENTIFICATIONS. THE NEXT MOST PROMINENT FENTANYL-RELATED SUBSTANCE, FURANYL FENTANYL, ACCOUNTED FOR **26%** OF THE IDENTIFICATIONS. NO NEW OPIOIDS WERE IDENTIFIED THIS QUARTER. OF THE 134 FENTANYL IDENTIFICATIONS, FENTANYL WAS FOUND AS THE ONLY CONTROLLED SUBSTANCE IN APPROX. **28%** OF THE IDENTIFICATIONS AND WAS FOUND IN COMBINATION WITH HEROIN IN APPROX. **61%** OF THE IDENTIFICATIONS.

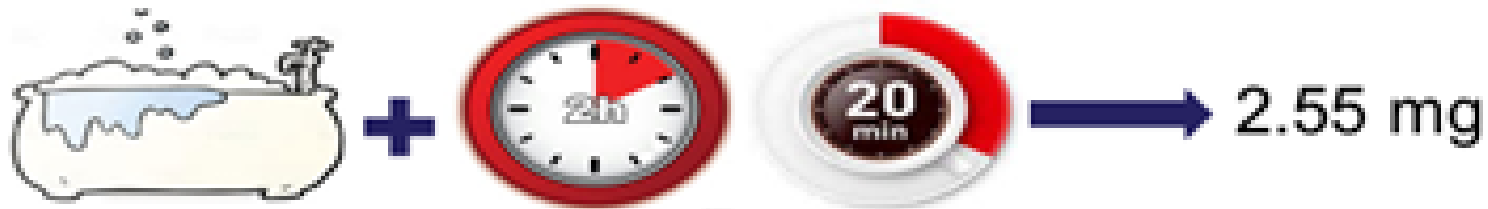


Routes of Exposure

- **Inhalation:** most likely route of exposure, fine particulates in the air inhaled through the mouth or nose.
- **Absorption:** though fentanyl has poor absorption qualities, it can be absorbed through the skin, especially through open sores or wounds.
- **Injection:** contaminated items such as needles, shards of glass, and metal or plastic fragments can puncture the skin and introduce the fentanyl to the body.
- **Ingestion:** least likely route of exposure that would require first responders to consume a contaminated food item. General hygiene would mitigate this threat.

Lethal Dose Through Your Skin?

18,000 cm² of skin with an average permeation rate of 61 ng/cm²/hr

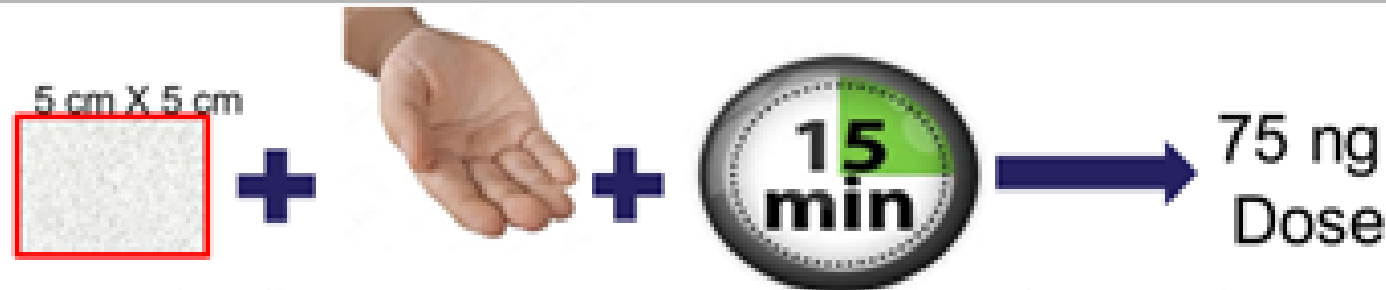


Manage your airway!

If you try really really hard....you can do anything!

"Only you can control your future!" ~ Dr. Seuss

Operationally Realistic Dose



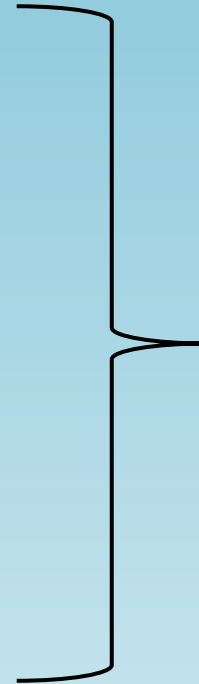
Fentanyl (100%) completely covering a 5cm x 5 cm portion of the palm of the hand for 15 minutes



The major route of entry remains the respiratory tract – PROTECT YOUR AIRWAY!
While fentanyl is a dermal penetration threat, the primary route of entry is by inhalation. By applying appropriate risk control measures, the dermal threat is readily mitigated.

Symptomology & Treatment

- **Slowed breathing or NO breathing**
- **Drowsiness or unresponsiveness**
- **Constricted or pinpoint pupils**
- **Disorientation**
- **Skin rash**
- **Clammy skin**
- **Cyanosis**



- **Maintain Airway**
- **Administer Naloxone as needed**
- **Seek medical care**

NARCAN[®] (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.



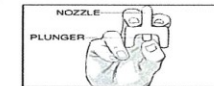
2 Give NARCAN Nasal Spray

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.



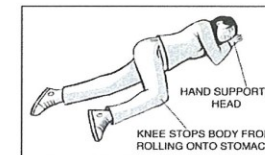
Get emergency medical help right away.

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.



3 Call for emergency medical help, Evaluate, and Support

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.

For more information about NARCAN Nasal Spray, go to www.narcannasalspray.com, or call 1-844-4NARCAN (1-844-462-7226).

Reducing Illicit Drug Exposure: Safety Measures for First Responders

SELECTING YOUR PERSONAL PROTECTIVE EQUIPMENT (PPE)

Take protective measures when illicit drugs are present.

■ MINIMAL EXPOSURE:

No amount of suspect
illicit drug products are visible.



Nitrile
Gloves



■ MODERATE EXPOSURE:

Small amounts of suspect
illicit drug products are visible.



Nitrile
Gloves

+



Safety
Goggles/Glasses

+



Wrist/Arm
Protection

+



Disposable
N, P, or R-100 filtering
facepiece respirator
or reusable elastomeric
N, P, or R-100 respirator

■ HIGH EXPOSURE:

Large amounts o
suspect
products are visible.



Entry not recommended:
Refer scene to special
operations response workers,
such as local HAZMAT team.



Personal Protective Equipment

PPE is directly dependent on level of contamination

PPE DEFINED:	
PPE:	Personal Protective Equipment
Personal PPE:	Nitrile gloves, safety glasses, N-95 dust mask, disposable paper suit or coveralls, shoe covers
Level C PPE:	Chemical resistant suit, air purifying respirator, gloves, booties
Level B PPE:	Chemical resistant suit, self-contained breathing apparatus, gloves, and boots.
Level A PPE:	Level "A" suit and a self-contained breathing apparatus



- Examples of Level D PPE for first responders
- Nitrile gloves
 - eye protection
 - particulate respiratory protection
 - smock / work uniform (long sleeve recommended)

Basic Decon:

- Dispose of gloves, smock and facemask
- Wash Hands, face, and exposed skin thoroughly with soap & water *
- Launder clothing separately
- Decon equipment as needed by washing with soap & water or cleaning with a neutralizer

* **Do not use hand sanitizer or alcohol wipes.**



Example of level C PPE as used in Clandestine
Drug Labs:

- taped seams
- butyl gloves
- chemical resistant boots
- chemical resistant suit
- APR



Example of level B PPE as used in Clandestine Drug Labs:

- taped seams
- butyl gloves
- chemical resistant boots
- chemical resistant suit
- SCBA



Example of level A PPE as used in Clandestine Drug Labs:

- inner gloves
- inner boots
- coveralls / work uniform
- SCBA
- fully encapsulating chemical resistant suit



Reducing Illicit Drug Exposure: Safety Measures for First Responders

DON'T TAKE IT HOME.

After leaving a scene where illicit drugs were present:

1  If wearing respiratory protection, remove respirator.

2  Remove gloves.

3  Use soap and water to wash and rinse skin. Do not use hand sanitizer.

4  Remove contaminated clothes and shower immediately.

5  Launder all contaminated clothing.
NEVER take contaminated clothes home.

6  Decontaminate or dispose of personal protective equipment per your department policy.

Decontamination for minimal exposure
Level D PPE



Centers for Disease Control
and Prevention
National Institute for Occupational
Safety and Health

*Illicit drug products include but are not limited to opioids, cocaine, cannabinoids, methamphetamines, heroin, cathinones, etc.
Learn more at: cdc.gov/niosh/topics/fentanyl/risk

Dry Decontamination for minimal exposure Level C / B PPE

Buddy System or Self Decontamination



Decontamination for gross exposure: Level B / A PPE



Decontamination Line /
Team Decontamination



FIELD SAMPLING / ANALYSIS



QUESTIONS?



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