

*Epidemic Proportions:  
Strength, Epidemiology & Public  
Safety Threats of Carfentanil et al.*

Drew Harrell, MD

Medical Director, Albuquerque Fire Department  
Medical Director, Bernalillo Co. Sheriff's Department  
UNM EMS Medical Direction Consortium



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# Questions to consider...

- 1- Public health threat or Law Enforcement issue?
- 2- Changes to LEO standard operations? How should Fire/EMS approach this growing issue and be prepared to help?
- 3- What's the solution!



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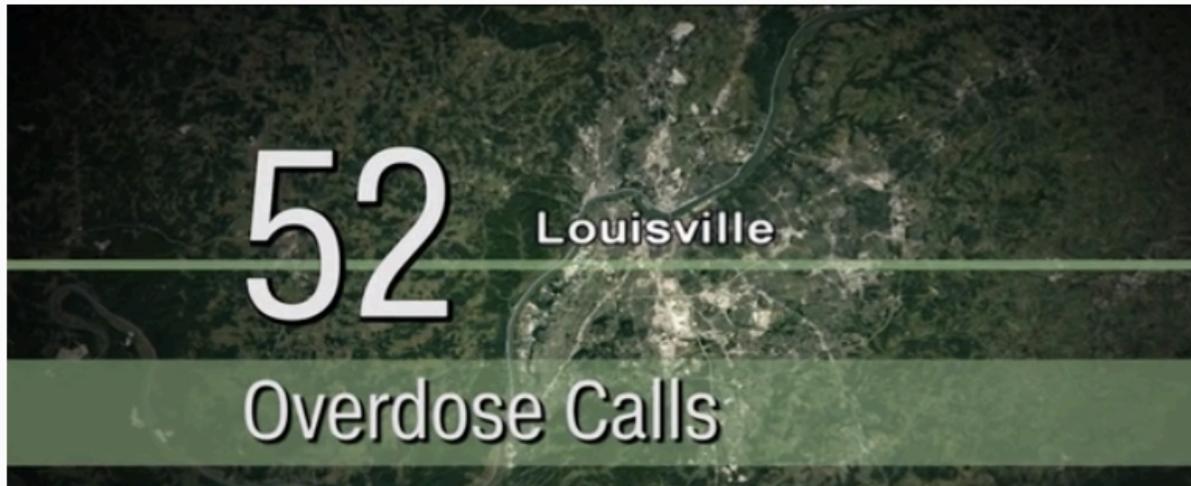




# Overdose cases spike in Louisville: 52 calls in 32 hours

By Ralph Ellis and Keith Allen, CNN

Updated 2:38 PM ET, Mon February 13, 2017



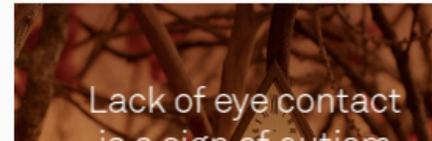
### Top stories



Discipline Conway, ethics office suggests



38-year-old kidnapping of Etan Patz solved



Lack of eye contact is a sign of autism



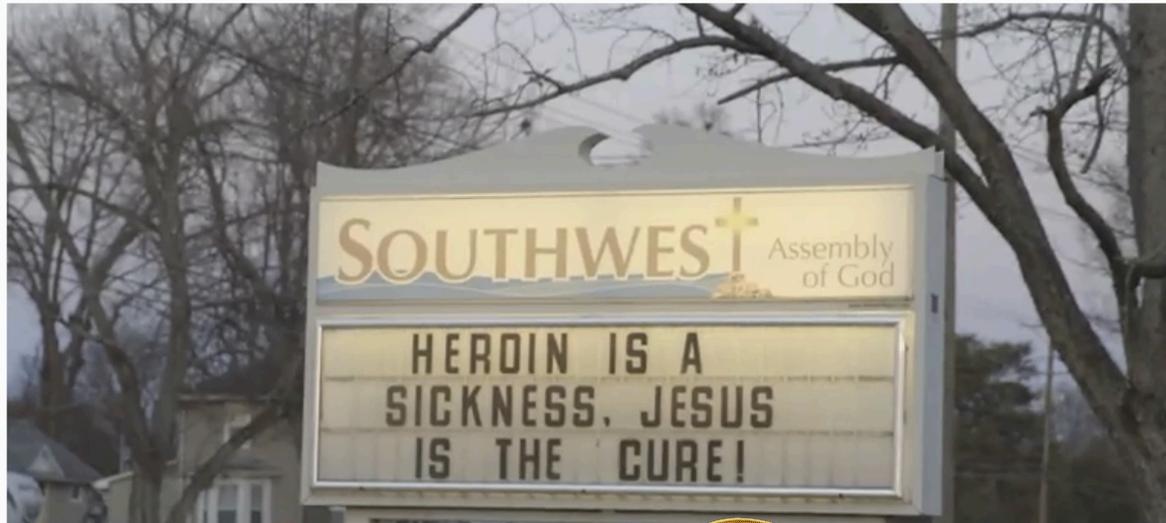
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# 'He's blue': Louisville rattled by 151 overdoses in 4 days

By Sonia Moghe and [Wayne Drash](#), CNN

🕒 Updated 1:53 PM ET, Tue February 14, 2017



### Top stories



Harrison Ford' involved in air



Tempers flare Russia relation



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# Emergency Medicine News

THE MOST TRUSTED NEWS SOURCE IN EMERGENCY MEDICINE

## Toxicology Rounds: Who Said the Opioid Crisis Couldn't Get Any Worse?

Gussow, Leon MD

Emergency Medicine News:  
November 2016 - Volume 38 - Issue 11 - pp 1,29-30  
doi: 10.1097/01.EEM.0000508281.75514.70  
Toxicology Rounds



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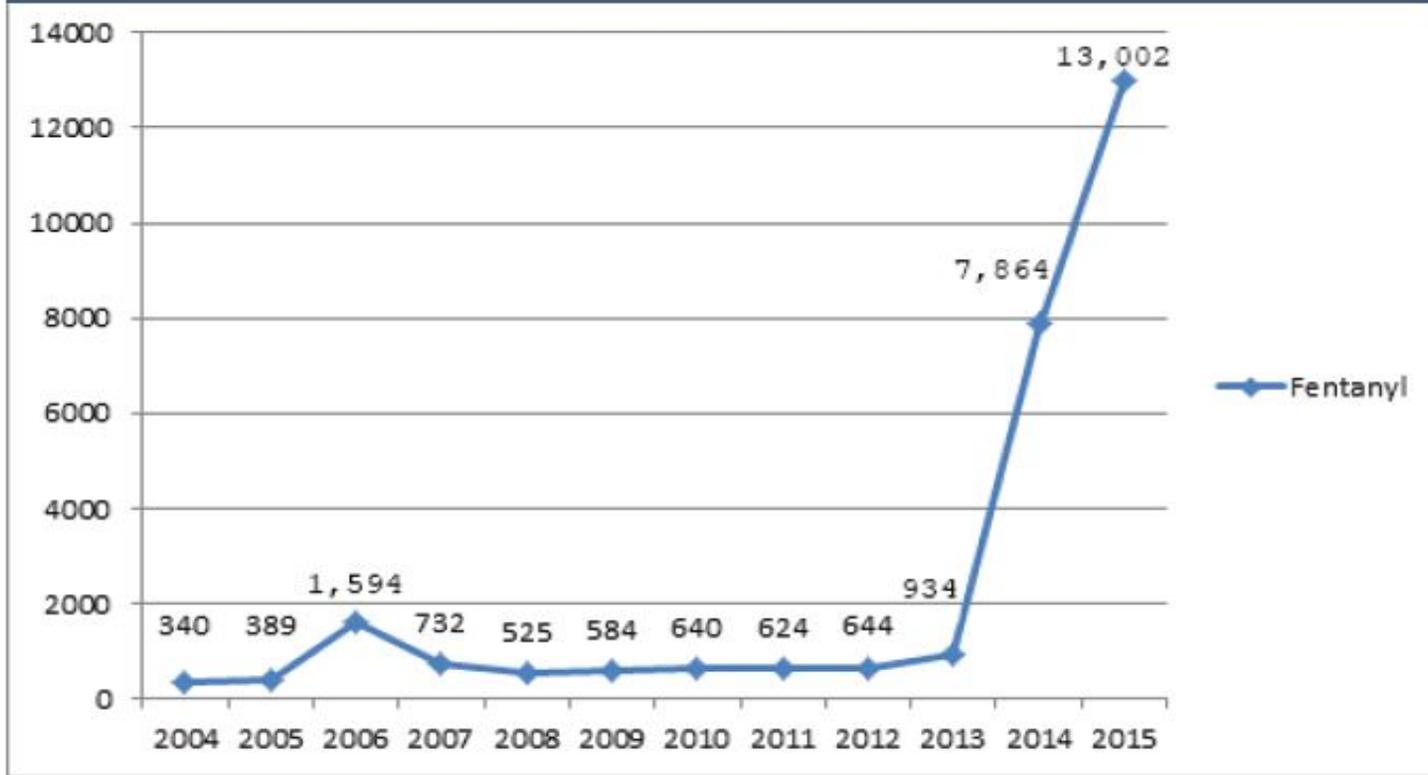


# Carfentanil Exposure Treatment & Precautionary Measures for EMS Providers

Fri, Dec 16, 2016 | By H. Evan Dingle, MD, Saralyn R. Williams, MD, Corey Slovis, MD



(U//DSEN) Figure 4: Number of Fentanyl Exhibits in NFLIS, 2004-2015



Source: DEA



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# What we are NOT talking about...

## Fentanyl (legal)



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# But this...

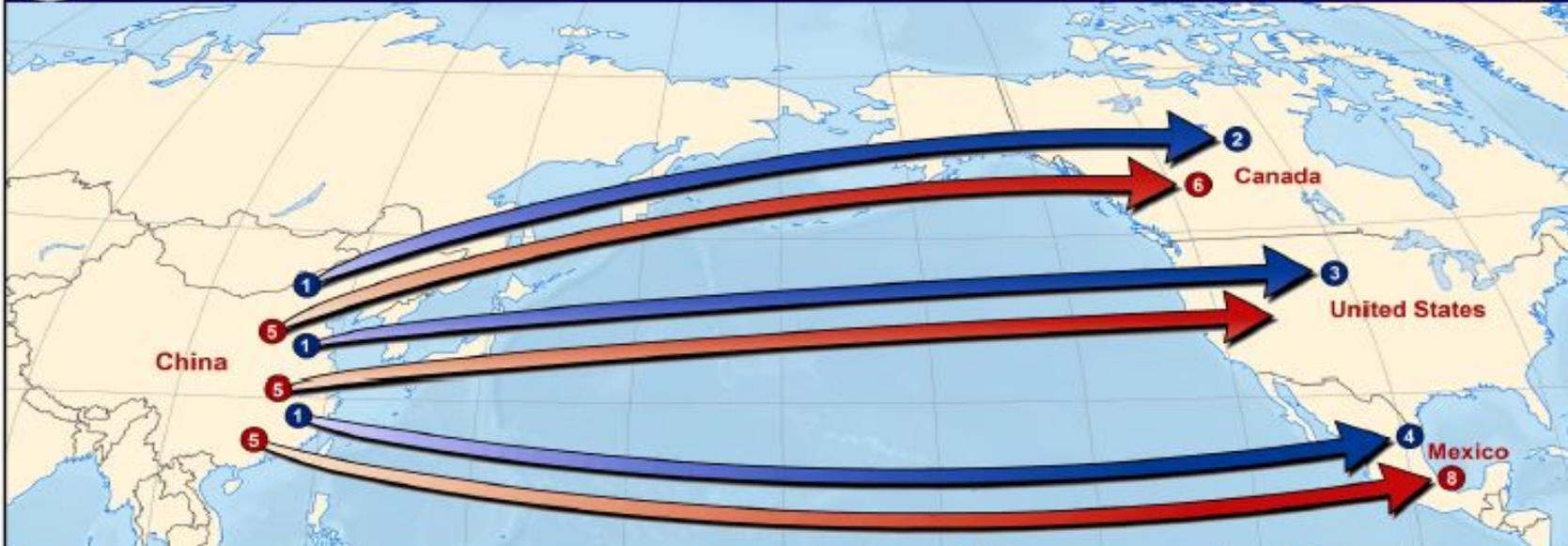


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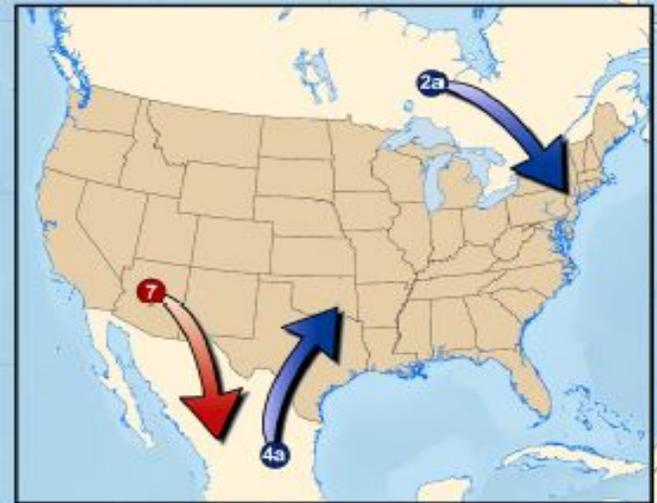




## (U//DSEN) Illicit Fentanyl and Fentanyl Precursor Flow Originating in China



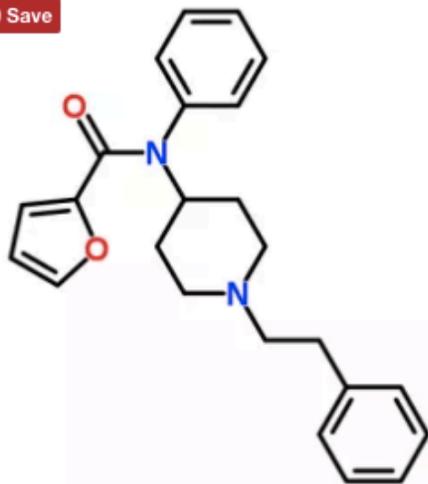
- 1 Fentanyl products in powder form and pill presses are shipped via mail services.
- 2 The powder fentanyl products are processed and mixed with heroin, or sold as heroin, or pressed into pills and sold in the Canadian drug market.
  - 2a Some fentanyl products are smuggled from Canada into the United States for sale, on a smaller scale.
- 3 The powder fentanyl products are processed and mixed with heroin, or sold as heroin, or pressed into pills and sold in the United States drug market.
- 4 The powder fentanyl products are cut and diluted for further smuggling, or pressed into counterfeit prescription pills.
  - 4a Diluted powder fentanyl products and counterfeit prescription pills containing fentanyl are smuggled from Mexico into the United States.
- 5 Precursors for manufacturing fentanyl products are shipped via mail services.
- 6 Precursors are used to manufacture fentanyl products in clandestine laboratories.
- 7 Precursors are smuggled across the Southwest border into Mexico to manufacture fentanyl products.
- 8 Precursors are used to manufacture fentanyl products in clandestine laboratories.



Source: DEA

\*Arrows do not represent specific transportation routes.

Save



**IUPAC:** N-(1-(2-phenylethyl)-4-piperidyl)-N-phenylfuran-2-carboxamide

**CAS:** 101345-66-8

**Molecular Weight:** 374.484

**Molecular Formula:** C<sub>24</sub>H<sub>28</sub>N<sub>2</sub>O<sub>2</sub>

- Pricing (Shipping + 1 time reship Included)
- 
- 2g : \$110
- 3g : \$120
- 4g : \$130
- 5g : \$150
- 10g : \$200
- 50g : \$600
- 100g : \$1000
- [PURCHASE](#)

## Buy Furanylfentanyl online from **Ching Labs:**

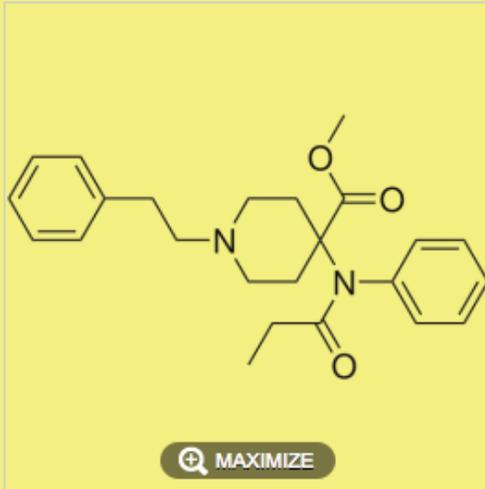
Furanylfentanyl is an extremely potent opioid which is structurally related to the highly potent opioid analgesic fentanyl.



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🏠 > Buy Carfentanil Drug



## Buy Carfentanil Drug

### Buy Carfentanil

4-((1-oxopropyl)-phenylamino)-1-(2-phenylethyl)-4-piperidinecarboxylic acid methyl ester

Reference: Carfentanil

Quantity:

2147483606 Items in stock

**\$361.00**

~~\$380.00~~ **-5%**

\$361.00 per 50g

 Add to cart

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More info

Comments

## Buy Carfentanil

Carfentanil or carfentanyl is an analogue of the popular synthetic opioid analgesic fentanyl, and is one of the most potent opioids known



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Analgesic	Strength (Relative)	Equivalent Dose (10 mg oral morphine)	Bioavailability	Half-life of active metabolites (hours)
Aspirin (non-opioid)	1/360	3600 mg	100%	3.1–9
Ibuprofen (NSAID, non-opioid)	1/222	2220 mg	87-100%	1.3–3
Naproxen (NSAID, non-opioid)	1/138	1380 mg	95%	12–24
Codeine	1/10	180 mg (PO)	≈90%	2.5–3 (C6G 1.94;[9] morphine 2–3)
Tramadol	1/10	>200 mg	75% (IR), 85–90% (ER)	5.5–7 (≈9)[clarification needed]
Dihydrocodeine	1/5	50 mg	20%	4
Hydrocodone (Vicodin)	1	10 mg	≥80%	3.8–6
Morphine (oral)	(1)	(10 mg) (30 mg PO)	≈25%	
Oxycodone (Percocet)	1.5	6.67 mg	≤87%	3–4.5
Morphine (IV/IM)	3	3.33 mg	100%	2–3
Methadone (acute)	3–4	2.5–3.33 mg	40–90%	15–60
Heroin IV/IM	4–5	2–2.5 mg	100%	<0.6
Hydromorphone (Dilaudid)	5	1.5 mg SC/IV/IM, 7.5 mg PO	62%	2–3
Oxymorphone (Opana)	7	10 mg PO, 1 mg IV	10%	7.25–9.43
Methadone (chronic)	2.5–5	3.33 mg	40–90%	15–60
7-Hydroxymitragynine	17	≈.6 mg		
Buprenorphine	40	0.4 mg	35–40% (SL)	20–70, mean 37
Fentanyl	50–100	0.1 mg (100 mcg) IM/IV	33% (SL); 92% (TD)	0.04 (IV); 7 (TD)
Sufentanil	500–1,000	10–20 µg		4.4
Etorphine[	1,000–3,000	3.3–10 µg		
Carfentanil	10,000–100,000	0.1–1.0 µg		7.7

**I NARCANNED  
YOUR  
HONOR STUDENT**



**GRAND  
CARAVAN**



## (U) Opioid Overdoses Caused by Counterfeit Xanax<sup>®</sup> Containing Fentanyl in Northern California



(U) This DEA Bulletin is based on preliminary reporting and may be subject to updating as additional information becomes available.

DEA-SFO-BUL-047-16  
JANUARY 2016

### (U) Event

(U//DSEN) In October and November 2015, the San Francisco Health Department and departments in the surrounding area issued health advisories detailing the overdoses and deaths arising from the ingestion of Xanax<sup>®</sup> purchased off the street. Although toxicology reports are pending, initial analysis of the counterfeit Xanax<sup>®</sup> pills has determined that they were either laced with fentanyl or composed entirely of it.

### (U) Significance

(U//DSEN) Xanax<sup>®</sup> purchased on the street can contain adulterants or may consist entirely of other substances, yet be indistinguishable from the legitimate pharmaceutical product. Fentanyl is an extremely potent, short acting synthetic opioid. The San Francisco Department of Public Health notes that Fentanyl may be more difficult than other opiates to reverse with naloxone, a short acting opioid antagonist. Multiple doses have often been required to reverse overdoses.

### (U) Details

(U//DSEN) From October 15 - 17, 2015, three individuals were examined at San Francisco General Hospital after ingesting a pill inscribed and sold as Xanax<sup>®</sup>, which was purchased off the street. All three suffered an opioid

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## FENTANYL PILLS DISGUISED AS PRESCRIPTION OXYCODONE TABLETS IN TUCSON, ARIZONA

### OFFICER SAFETY/SITUATIONAL AWARENESS

**SITUATION:** On September 7, 2016, the Arizona HIDTA Counter Narcotics Alliance (CNA) seized approximately 1,100 blue tablets imprinted with an “M” on one side and “30” on the opposite side of the tablet. The tablet imprints and color are consistent with pharmaceutically manufactured Oxycodone tablets. Investigative intelligence indicates the tablets originated in Mexico. The Tucson Police Department Crime Laboratory analysis of one tablet revealed the presence of Fentanyl and Acetaminophen. Intelligence indicates the price for a Fentanyl tablet is approximately \$18.00 in the Tucson, Arizona area.



*Photographs: Tucson Police Department*

**Fentanyl/Acetaminophen  
tablets disguised as  
pharmaceutically  
manufactured Oxycodone  
tablets**

**OFFICER SAFETY:** As a reminder, Fentanyl can be fatal if swallowed, inhaled or absorbed through the skin. If Fentanyl comes in contact with the skin, it can enter the body through the inadvertent touching of the mouth, nose, or other mucous membranes. Fentanyl can be lethal at very low exposure levels with doses as small as 250 micrograms leading to overdose and death.

[www.azhidta.org](http://www.azhidta.org)

September 14, 2016

**LAW ENFORCEMENT SENSITIVE**

TPSA-16-016

## FENTANYL / CARFENTANIL ALERT FOR CANINE HANDLERS

On October 27, 2016, the Broward Sheriff's Office Detection Canine Unit assisted DEA, HSI, and the Lauderhill Police Department with the execution of a narcotics search warrant. The subject of the investigation was suspected in sale of Heroin and Heroin potentially laced with Fentanyl. It was believed that the supplier of the Fentanyl had been arrested some weeks prior to the execution of the warrant and the presence of Fentanyl was unlikely.



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October 9, 2016 Albuquerque, NM Pill count 3000+

## Tablets containing Fentanyl – Do the Math!



EMCDDA: 2mg is **fatal**.

Avg. tablet weight: 106mg

Avg. purity ~1.7%

Each tablet has: ~**1.8mg**  
fentanyl hydrochloride

**Or... 1,800  
Micrograms!!!**

Analgesic	Strength (Relative)	Equivalent Dose (10 mg oral morphine)	Bioavailability	Half-life of active metabolites (hours)
Aspirin (non-opioid)	1/360	3600 mg	100%	3.1–9
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# DEA Minimum safety precautions



- Personal Protective Equipment (PPE): Evidence exhibits should be handled, processed, received, transferred and delivered while employing at a minimum **a chemical resistant suit, respirator, nitrile gloves and eye protection, when contact with any suspected fentanyl related substance is a possibility.**
- The PPE described should only be used when evidence is located and/or received in small amounts and can easily be contained and sealed, NOT where there is loose powder and/or gross contamination. **A “Level A” protective suit should be utilized in areas with gross contamination; clandestine laboratory enforcement personnel are “Level A” certified and should be consulted in these instances.**

●●○○ AT&T LTE 10:10 94%  
🔍 level a suit





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## The National Institute for Occupational Safety and Health (NIOSH)

Workplace Safety & Health Topics

Fentanyl

Protecting Workers at Risk

Illegal Use of Fentanyl

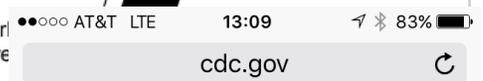
Resources

NIOSH > Workplace Safety & Health Topics

### Fentanyl: Preventing Occupational Exposure to Emergency Responders



Promoting a productive work environment through safety and health research



## The National Institute for Occupational Safety and Health (NIOSH)



FENTANYL : Incapacitating Agent



CAS #: 437-38-7

RTECS #: UT5550000



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**BERNALILLO COUNTY SHERIFF'S DEPARTMENT  
INTERNAL DEPARTMENT CORRESPONDENCE  
SHERIFF MANUEL GONZALES III**



**DEPARTMENT MEMORANDUM:**

**DATE:           OCTOBER 27, 2016**

**TO:             ALL SPECIAL OPERATIONS UNITS (SWAT, K9, ERT,CNT)**

**FROM:          SHERIFF MANUEL GONZALES III**

**SUBJECT:       UNIVERSAL PRECAUTIONS FOR SPECIAL OPERATIONS IN POSSIBLE FENTYNAL ENVIRONEMENTS**

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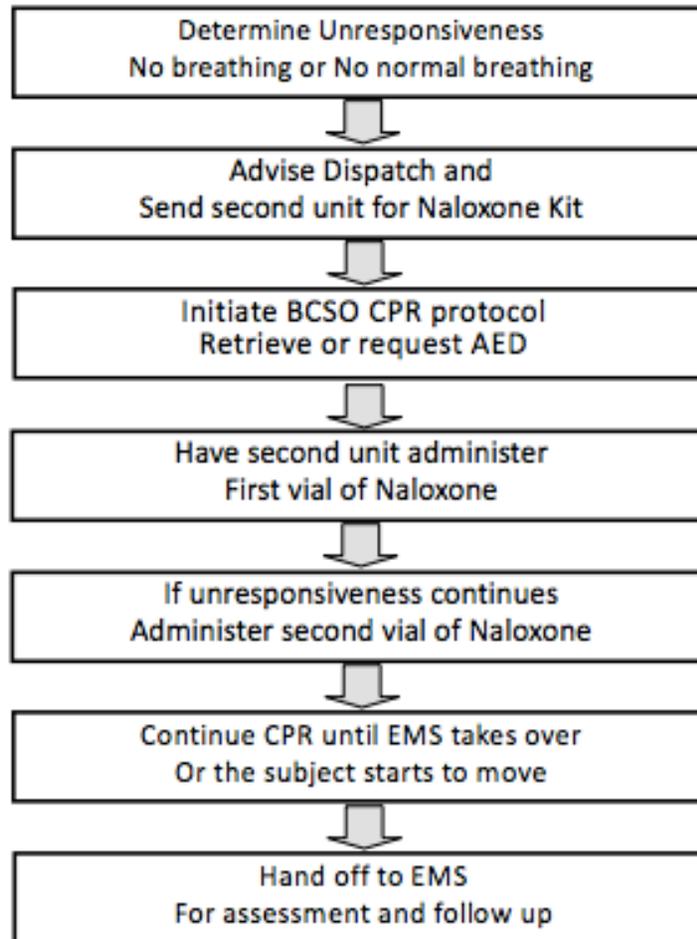
The Sheriff's Office has received information in regards to Fentanyl and Carfentil overdoses occurring in our state. According to the Drug Enforcement Administration (DEA) these synthetic drugs are being "cut" with Heroin and also being pressed into pills to avoid detection and are being trafficked as Oxycodone.



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## BCSO Overdose Response with Naloxone



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**NEW MEXICO DEPARTMENT OF HEALTH**  
Administrative Manual

Chapter

**ADMINISTRATION**

**EFFECTIVE:**

**REVISED: 4/13/9 draft**

Policy

**NALOXONE DISTRIBUTION POLICY**

**I. PURPOSE:**

This New Mexico Department of Health (NMDOH) policy establishes guidelines for the dispensing of Naloxone through NMDOH Public Health Offices (PHO) and Contractors in order to reduce fatal opioid overdose as stated in Chapter 24, Article 23, Sections 24-23-1 and 24-23-2, NMSA 1978, and 7.32.7.1 through 7.32.13 NMAC, 9/13/2001.



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# Solutions...



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# Questions to consider...

1- Public health threat or Law Enforcement issue?

2- Changes to LEO standard operations? How should Fire/EMS approach this growing issue and be prepared to help?

3- What's the solution!



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But one final thing ...

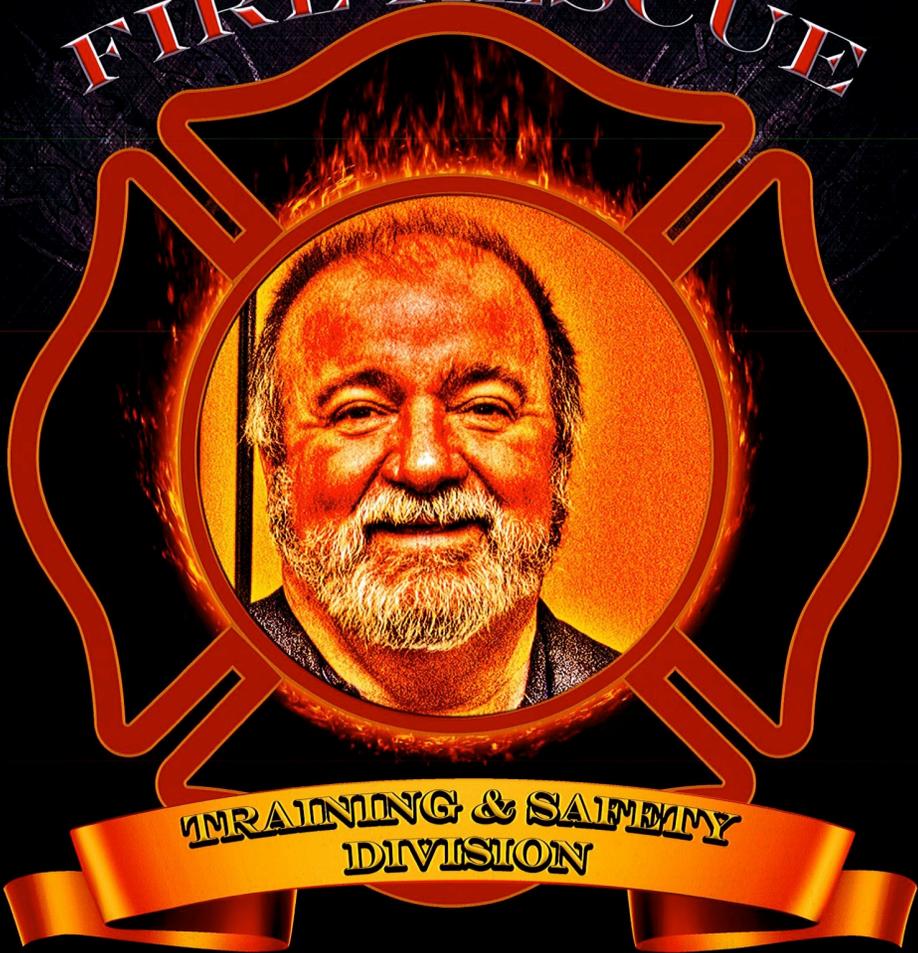


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# Gathering of Eagles

## FIRE RESCUE



Courtesy of Palm Beach County Fire Rescue

# Thank You

- [dharrell@cabq.gov](mailto:dharrell@cabq.gov)
- [ajharrell@salud.unm.edu](mailto:ajharrell@salud.unm.edu)



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**It's not "just another OD"**



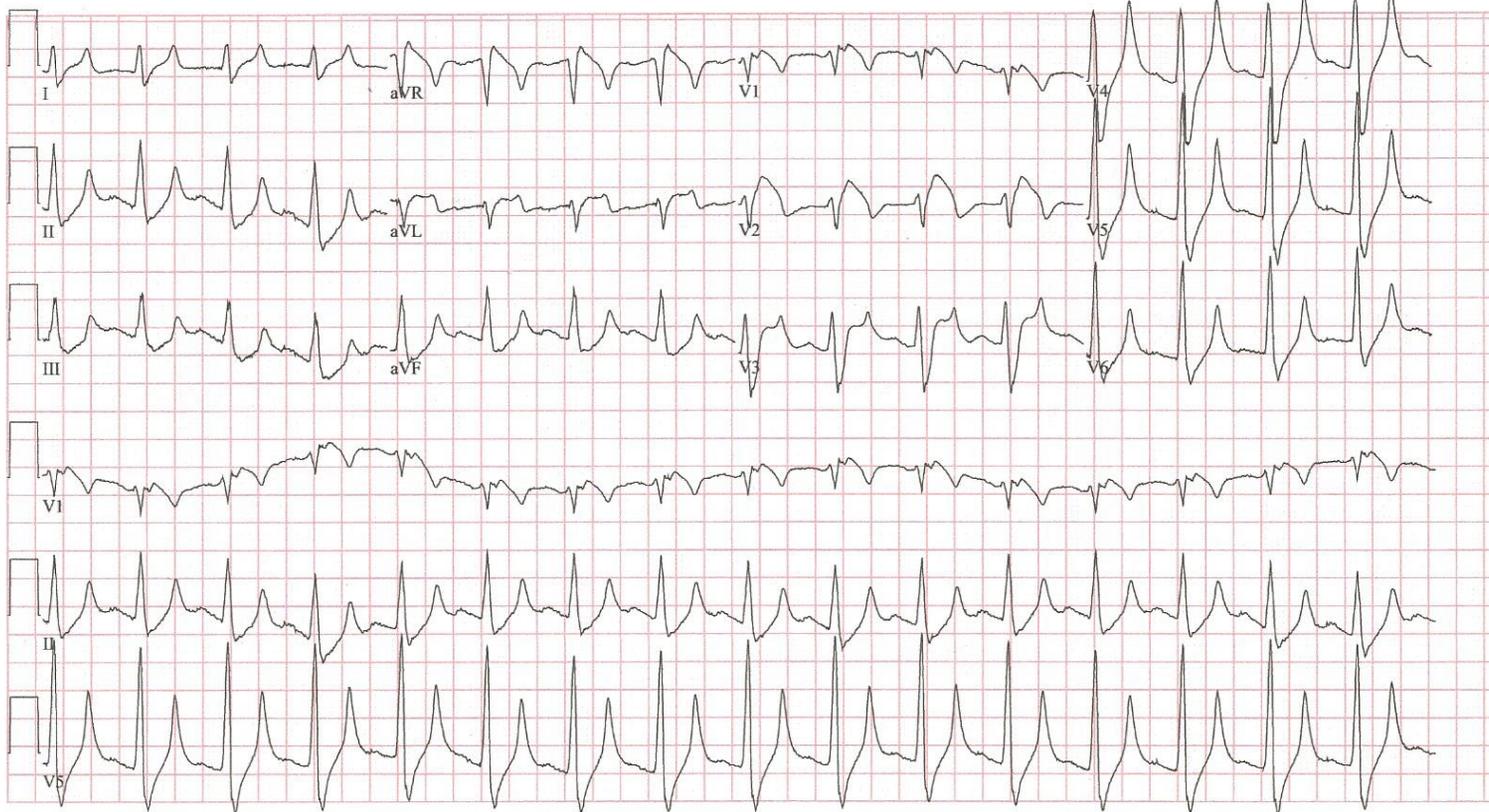
**Kathleen Schrank, MD, FACEP, FACP**  
**City of Miami & Key Biscayne Fire Rescue**

## “Rescue 6 to JMH....”

- 40 y.o. male found unresponsive at home by his brother, GCS 8, pinpoint pupils, improving with Narcan and IVF
- ED: Alert, cussing, screaming with back and leg pain
- No sx/sx trauma, can't/won't move legs
- Later RLE fine, LLE zero
- More Hx: Last seen normal MANY hours ago, found hanging over edge of bed, legs twisted under him

Referred by:

Confirmed By: Rosario Colombo



25mm/s 10mm/mV 150Hz 8.0 SP2 12SL 241 HD CID: 127

EID:1018 EDT: 12:41 26-SEP-2016 ORDER: 774145837 ACCOUNT: 40012736109

## Labs:

- Venous pH 6.98, BE-17, lactic acid 4.7
- **K+ 8.6**
- **Creat 4, PO<sub>4</sub> 14, uric acid 15, Ca 6.5, gap 33**
- **CPK >300,000**
- **Urine red, U/A blood high, no RBC**

## DDx LLE:

- Trauma : fx vs **crush** vs SCI vs compartment syndrome
- **Rhabdo**
- **Plexopathy**

# “Rescue 5 to JMH....”

- 28 year old male opiate OD
- ED: RLE pain and swelling
- Crush/compartment syndrome
  - Fasciotomies
  - Later amputation
- Rhabdo, renal failure, dialysis

# Compartment Syndrome & Fasciotomies

- Catastrophic diagnosis

