

Carfentanil Fact Sheet

What is the purpose of this update?

To alert health care professionals and first responders to new developments that have placed more people at risk for fentanyl-involved overdoses from illicitly manufactured fentanyl (IMF) and may increase the risk of non-fatal and fatal overdose. These developments include the following: 1.) a sharp increase in the availability of counterfeit pills containing varying amounts of fentanyl and fentanyl-related compounds (e.g., labeled as Oxycodone, Xanax, and Norco), 2.) the potential for counterfeit pills containing fentanyl and fentanyl-related compounds to be broadly distributed across the United States which could impact states not previously impacted by IMF and persons using diverted prescription pills (i.e., licit drugs diverted for illicit purposes and involves the diversion of drugs from legal and medically necessary uses towards uses that are illegal and typically not medically authorized or necessary) [1], 3.) the widening array of toxic fentanyl-related compounds being mixed with heroin or sold as heroin, including extremely toxic analogs such as carfentanil, and 4.) continued increases in the supply and distribution of IMF <http://www.cdc.gov/drugoverdose/data/fentanyl-le-reports.html>.

What is Carfentanil?

Carfentanil is an extremely potent fentanyl analog (synthetic opioid). Designed in 1974, carfentanil was previously used exclusively for veterinary use with large animals and is not approved for use in humans, as it has been shown to be 100 times more potent than fentanyl in animal studies. Other fentanyl-related compounds have been reported by the DEA National Forensic Laboratory Information System (NFLIS), which systematically collects drug identification results from drug cases submitted for analysis to forensic laboratories (referred to as drug submissions). [2]

Carfentanil and other fentanyl analogues present a serious risk to public safety, first responder, medical, treatment and laboratory personnel. These substances can come in several forms, including powder, blotter paper, tablets, patch and spray. Some forms can be absorbed through the skin or accidentally inhaled. [3]

What are the CDC Recommendations? [2]

CDC suggests the following actions in response to the increased risk of fentanyl overdose from IMF due to the influx of fentanyl-laced counterfeit pills, the widening array of highly toxic fentanyl-related compounds, and the continued expansion and geographic spread of the IMF supply:

Expand Use of Naloxone and Treatment

o **Health Care Providers:**

- Multiple dosages of naloxone may need to be administered per overdose event, because of fentanyl's increased potency relative to other opioids. Orally-ingested counterfeit pills laced with fentanyl may require prolonged dosing of naloxone in the ED/hospital setting due to a delayed toxicity that has been reported in some cases [4].
- Facilitate access to Medication-Assisted Treatment (MAT). MAT is a comprehensive approach to addressing the needs of persons with opioid use disorders that combines the use of medication with counseling and behavioral therapies. Providers should discuss treatment options with persons who have an opioid use disorder, and persons who have experienced an opioid-related overdose once they are stabilized.

What should responding personnel do if they encounter this substance?

- o **Exercise extreme caution.** Only properly trained and outfitted law enforcement professionals should handle any substance suspected to contain fentanyl or a fentanyl-related compound. If encountered, contact the appropriate officials within your agency. [3]
- o **Be aware of any sign of exposure.** Symptoms include: respiratory depression or arrest, drowsiness, disorientation, sedation, pinpoint pupils, and clammy skin. The onset of these symptoms usually occurs within minutes of exposure. [3]

- **Seek IMMEDIATE medical attention.** Carfentanil and other fentanyl-related substances can work very quickly. If inhaled, move the victim to fresh air. If ingested and the victim is conscious, wash out the victim's eyes and mouth with cool water. [3]
- **Be ready to administer naloxone in the event of exposure.** Naloxone is an antidote for opioid overdose. Immediately administering naloxone can reverse an overdose of carfentanil, fentanyl, or other opioids, although multiple doses of naloxone may be required. Continue to administer a dose of naloxone every 2-3 minutes until the individual is breathing on his/her own for at least 15 minutes. [3]
- **Remember that carfentanil can resemble powdered cocaine or heroin.** If you suspect the presence of carfentanil or any synthetic opioid, do not take samples or otherwise disturb the substance, as this could lead to accidental exposure. Rather, secure the substance and follow approved transportation procedures. [3]

Where can I get more information?

- CDC Health Advisory: Recommendations for Laboratory Testing for Acetyl Fentanyl and Patient Evaluation and Treatment for Overdose with Synthetic Opioid at <http://emergency.cdc.gov/han/han00350.asp>
- Canadian Centre on Substance Abuse Bulletin: Novel Synthetic Opioids in Counterfeit Pharmaceuticals and Other Illicit Street Drugs at (see CCENDU Bulletin <http://www.ccsa.ca/Resource%20Library/CCSA-CCENDU-Novel-Synthetic-Opioids-Bulletin-2016-en.pdf>).
- MMWR: Fentanyl Law Enforcement Submissions and Increases in Synthetic Opioid-Involved Overdose Deaths - 27 States, 2013-2014 http://www.cdc.gov/mmwr/volumes/65/wr/mm6533a2.htm?s_cid=mm6533a2_w
- MMWR: Increases in Fentanyl-Related Overdose Deaths — Florida and Ohio, 2013–2015 http://www.cdc.gov/mmwr/volumes/65/wr/mm6533a3.htm?s_cid=mm6533a3_w
- SAMHSA Opioid Overdose Toolkit at: http://store.samhsa.gov/shin/content/SMA13-4742/Overdose_Toolkit_2014_Jan.pdf

References:

[1] "Drug Diversion in the Medicaid Program: State Strategies for Reducing Prescription Drug Diversion in Medicaid," Centers for Medicare & Medicaid Services (Baltimore, MD: January 2012), p.1, <https://www.cms.gov/Medicare-Medicaid-Coordination/Fraud-Prevention/MedicaidIntegrityProgram/downloads/drugdiversion.pdf>

[2] "Influx of fentanyl-laced counterfeit pills and toxic fentanyl-related compounds further increases risk of fentanyl-related overdose and fatalities," CDCHAN-00395. CDC Health Alert Network. August 25, 2016. <https://emergency.cdc.gov/han/han00395.asp>

[3] "Carfentanil: A Dangerous New Factor in the U.S. Opioid Crisis." United States Drug Enforcement Administration. Officer Safety Alert. https://www.dea.gov/divisions/hq/2016/hq092216_attach.pdf

[4] Sutter ME, Gerona R, Davis MT, et al. Fatal fentanyl: one pill can kill. Acad Emerg Med. [Epub ahead of print June 20, 2016] <http://onlinelibrary.wiley.com/doi/10.1111/acem.13034/abstract>