

FENTANYL RISKS TO EMERGENCY RESPONDERS

AND WHY FIT TESTING MATTERS

Recently there has been an alarming increase in opioid overdoses across the United States. Many of those deaths have been caused by Fentanyl, a synthetic opioid. The purpose of this paper is to explain how Fentanyl is a danger to first responders and why respirator fit testing matters when protecting against accidental exposure.



What is Fentanyl?

Fentanyl is a synthetic opioid drug manufactured by pharmaceutical companies. It is used as a substitute for morphine at low therapeutic doses to manage severe pain. Unfortunately, Fentanyl is also produced illegally. These illegal operations mix fentanyl with street drugs like heroin and cocaine as well as counterfeit pain pills. Users of these counterfeit pills and street drugs often have no idea fentanyl has been added.

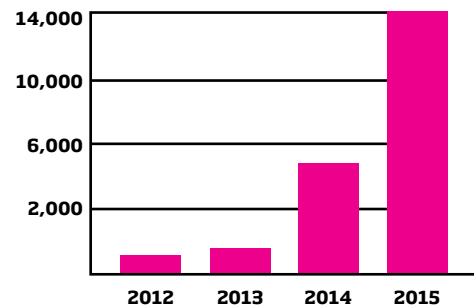
Fentanyl is very potent

Fentanyl is 50 to 100 times more potent than morphine. This means the toxic dose that can cause death is very small. In fact the estimated toxic dose is only 2 to 3 milligrams, which is comparable to a few grains of table salt. The extreme potency, combined with lack of quality control used by illegal drug manufacturers, has led to a high drug overdose rate.

Emergency Responder Concerns

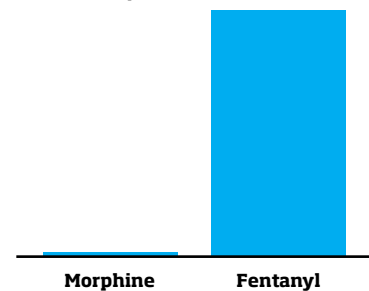
Medical and law enforcement emergency responders are at an increasing risk of exposure to fentanyl. Accidental exposure resulting from medical responders coming into contact with trace amounts of fentanyl on an overdose victim's clothing has been often documented. Law enforcement responders have been exposed to fentanyl when executing search warrants and apprehending suspects associated with illegal drug use.

Number of Reported Law Enforcement Encounters Testing Positive for Fentanyl in the U.S.



Source: CDC

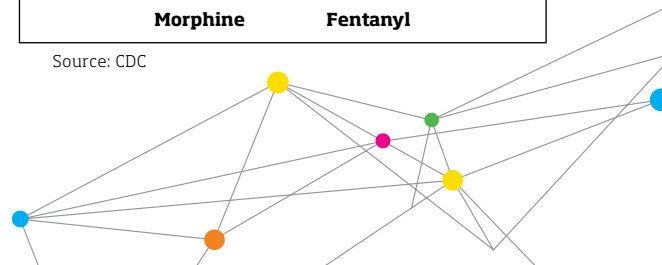
Potency of Fentanyl vs. Morphine (50-100x more)



Source: CDC



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Routes of Exposure

Exposure to Fentanyl can occur through inhalation, skin absorption, and contact with eyes and mucous membrane. Inhalation can occur when fentanyl is in fine powder form and has been stirred up into the air. Skin absorption can occur by accidentally touching a surface with trace amounts of fentanyl. Mucous membrane exposure can occur when someone touches their mouth with fentanyl contamination on their hands.

Fentanyl Safety Guidelines

Guidelines have been established by the Drug Enforcement Administration (DEA) and National Institute for Occupational Safety and Health (NIOSH) to help protect emergency responders from the harmful effects of fentanyl exposure. These guidelines are clear. Proper PPE including gloves and respirators, must be used to protect against fentanyl exposure.

First Responders and Accidental Exposure

As the number of calls involving opioid overdoses and suspected drug labs increases, so does the risk of accidental exposure and overdose to first responders. To prevent this, first responders should wear respiratory protection such as an elastomeric mask and other personal protective equipment. Respirators must be fit tested to ensure they provide adequate protection.

Respirator Fit Testing

To respond to the increasing instances of accidental Fentanyl exposure, provide staff with a respirator fit test they can both learn from and trust. PortaCount Fit Testers deliver safety by utilizing the most accurate quantitative fit testing method available to identify poor fitting masks.* Combining real-time and real-world measurements, PortaCount Fit Testers advance respirator safety beyond what any other fit test can deliver.



New features like FitCheck Mode™ and in-test animations allow users to achieve a proper respirator fit quickly and teach staff how to wear respirators correctly for reliable on-the-job protection.

With the ability to test any respirator, the PortaCount Fit Tester is the most powerful instrument available to meet the safety challenges posed by Fentanyl and the increased chance of accidental exposure for emergency responders.

www.tsi.com/portacount4 to learn more.

Links to Fentanyl Safety Guidelines:

https://www.dea.gov/druginfo/Fentanyl_BriefingGuideforFirstResponders_June2017.pdf

<https://www.fentanylsafety.com/>

<https://www.cdc.gov/niosh/topics/fentanyl/risk.html>

*Coffey C.C, D.L. Campbell, W.R. Myers, and Z. Zhuang: Comparison of Six Respirator Fit Test Methods with an Actual Measurement of Exposure in a Simulated Health-Care Environment: Part II - Method Comparison Testing. Am. Ind. Hyg. Assoc. J. 59:862-870 (1998).

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