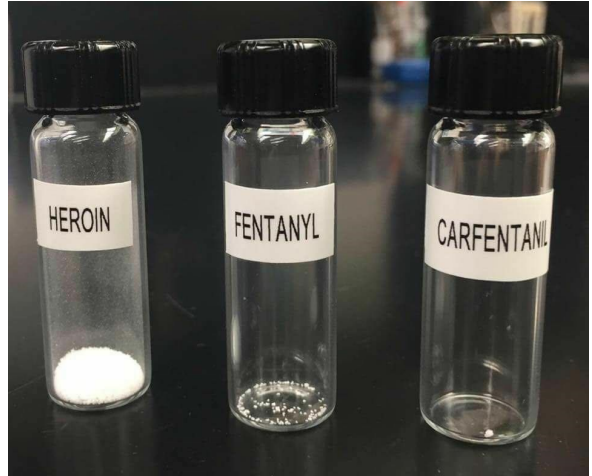


Carfentanil Safety for Responders

Carfentanil, which is used as a tranquilizing agent for elephants and other large mammals, is 10,000 times more potent than morphine and 100 times more potent than fentanyl. It is often mixed in with other drugs such as heroin, cocaine or crystal meth — and often drug users have no idea their drugs have been tainted. This continuing drug trend could overdose, or potentially kill, responders with minimal contact.

Carfentanil and other fentanyl-related compounds are a serious danger to public safety, first responder, medical, treatment and laboratory personnel. Even a tiny amount of the wrong substance, as seen in the comparison graphic to the right, can be deadly. These substances can come in several forms, including powder, blotter paper, tablets and spray. Synthetic opioids can be absorbed through the skin or accidental inhalation of airborne powder.



A visual of the dose of heroin, fentanyl and carfentanil needed to kill an average adult. Photo courtesy of Paige Sutherland/NHPR

When responding to an overdose, response personnel should remember the following best practices:

Exercise extreme caution with any suspected opioid delivery method.

Use universal precautions, such as gloves and airway protection, when responding to any situation where carfentanil or fentanyl may be present. Cover as much of the skin as possible when responding to a potential overdose situation.

Be aware of any sign of exposure. Symptoms include: respiratory depression or arrest, drowsiness or profound exhaustion, disorientation, sedation, pinpoint pupils and clammy skin. Once in the bloodstream, the blood-brain barrier is crossed rapidly, and the onset of symptoms may occur within minutes.

Seek immediate medical attention. Carfentanil and other fentanyl-related substances can work very quickly, so in cases of suspected exposure, it is important to seek medical attention immediately. Any needle stick should be medically evaluated as soon as possible.

Be ready to address ventilation issues in the event of exposure. Opioids suppress the breathing drive, so emergency responders should be prepared to support ventilation. This can be done through airway control, or through the administration of naloxone. Naloxone should not be given after intubating a patient.

Naloxone is a treatment for opioid overdose. Immediately administering high doses of naloxone can reverse an overdose of carfentanil or fentanyl. In the case of the more potent opioids, many more doses of naloxone may be required to reverse an overdose. Responders should be prepared with additional doses of naloxone.

In some cases, naloxone dosages will wear off before the opioid dose, which can cause the patient to overdose again. In all cases, these patients should be transported to the hospital for observation, to guard against a relapse into respiratory arrest.