



## FENTANYL AND CARFENTANIL EXPOSURE FOR POLICE

Visit [pshsa.ca](http://pshsa.ca)

This fast fact has been developed to protect police officers from accidental exposure to hazardous drugs such as fentanyl and its analogues and to support the Canadian Action Plan for better informing Canadians about the risk of opioids.

### WHAT ARE FENTANYL AND CARFENTANIL?

Fentanyl is a potent synthetic opioid administered to patients to prevent pain following surgery, for the management of chronic pain, and to produce sedation during medical procedures. Although similar in effect to morphine and heroin, fentanyl is 50 to 100 times more potent<sup>1</sup>. Carfentanil is an analog of fentanyl, however, it is 100 times more powerful than fentanyl and 10,000 times more powerful than morphine. As it is the most potent commercially used opioid, carfentanil is inappropriate for use in humans and is intended to be used as a tranquilizer for large animals<sup>2</sup>. Both fentanyl and carfentanil are currently

listed in Schedule I of the federal Controlled Drugs and Substances Act (1996).

Recently, illicit fentanyl, carfentanil and other analogs have been emerging as recreational drugs.

### WHAT DOES ILLICIT FENTANYL LOOK LIKE?

Illicit fentanyl comes in many forms including powder form similar to heroin, which can be mixed into other drugs such as cocaine, transdermal fentanyl patches, or counterfeit tablets<sup>3</sup>.

## HOW CAN A POLICE OFFICER BE EXPOSED TO FENTANYL OR CARFENTANIL?

Front-line police officers may become accidentally exposed to fentanyl when working with a subject who has used or overdosed on the drug or its analogs. Fentanyl and its analogues are used to cut other drugs, and users are often not aware that fentanyl may be present in the illicit drugs they are in possession of (for example a subject may report to the arresting officer that they are in possession of cocaine and be unaware that it was cut with fentanyl). Officers may also be exposed when conducting searches of vehicles, residences or persons which have been contaminated with the drug and they are not wearing proper personal protective equipment. Some examples of tasks that could put an officer at risk would include administering first aid or naloxone to an overdosed subject, vehicle searches, searches of arrested persons, clandestine lab investigations and the execution of search warrants

## WHAT ARE THE ROUTES OF EXPOSURE TO FENTANYL AND ITS ANALOGUES?

Fentanyl and its analogs can enter the body through inhalation, ingestion, intravenously or intramuscular injection. Skin contact is also thought to be a potential exposure route, but is not likely to lead to overdose unless there is prolonged exposure to large volumes of highly concentrated fentanyl in powder form.<sup>1</sup> Brief skin contact with fentanyl or its analogs is not expected to lead to toxic effects if any visible contamination is immediately removed.<sup>1</sup> It is not yet known whether fentanyl can be absorbed through the eyes. Overall, inhalation and incidental ingestion are the greatest threats to police officers.

## WHAT ARE THE SIGNS AND SYMPTOMS OF AN OVERDOSE FROM FENTANYL OR ITS CARFENTANIL OVERDOSE?

The signs and symptoms of a fentanyl overdose or one of its analogues or any other opioid include:<sup>3, 4, 5</sup>

- Difficulty walking, talking or staying awake
- Extreme drowsiness
- Choking, gurgling or snoring sounds
- Slow, shallow or no breathing
- Bluish lips and nails
- Person is unresponsive, does not wake up even when shaken or shouted at
- Cold and clammy skin
- Tiny 'pinpoint' pupils
- Dizziness and confusion

# WHAT CAN BE DONE TO CONTROL EXPOSURE TO FENTANYL AND CARFENTANIL?

## ESTABLISHING EFFECTIVE ILLICIT DRUG SEARCH MEASURES AND PROCEDURES:

Employers have an obligation to take every precaution reasonable in the circumstances for the protection of a worker. This includes developing clear guidelines on safe search and seizure protocols, and how to handle situations when workers may encounter illicit drugs while dealing with subjects who may be suspected of or are known to use the drug or its analogs. Employers should ensure these guidelines and trainings are developed in consultation with the Joint Health and Safety Committee. Employers are encouraged to consider Ontario Police Health and Safety Committee Guidance Notes 5 and 14 when developing and updating guidelines for their service.<sup>10 11</sup>

Police officers should avoid unnecessary handling of illicit drugs. If officers encounter such substances they should conduct a situational risk assessment, follow safe work practices as set out by their respective police service, and advise their supervisor immediately.

A situational risk assessment should be done to assess the risk of fentanyl exposure to police officers. This risk assessment evaluates:

1. **The quantity and form of the opioid:** Is it in pill form or a large quantity of loose powder?
2. **The type of packaging:** Is it in a sealed baggie or loose powder on the individual's clothing?
3. **The potential for exposure:** Is there a chance of accidental inhalation or prolonged contact with bare skin (which may lead to accidental contamination of mucous membranes from direct contact)?

Based on the predicted risks, the following precautions or actions can be taken:<sup>6</sup>

Risk Level	Example	Precautions
Minimal	It is suspected that fentanyl may be present but no fentanyl products are visible	<ul style="list-style-type: none"> <li>Follow organization's standard operating procedures</li> <li>Continuously conduct situation risk assessments to determine further precautions and actions to take</li> </ul>
	Small amounts of drugs in pill form are present	<ul style="list-style-type: none"> <li>Prevent skin and eye contact by donning proper Personal Protective Equipment (PPE)</li> <li>Only handle pills when wearing the appropriate PPE. If you must handle the pills, follow your services guidelines (double nitrile gloves may be appropriate).</li> </ul>
Moderate	Minimal quantities of white powder drug is present on an overdosed patient	<ul style="list-style-type: none"> <li>If you encounter any powder – assume it is fentanyl or one of its analogues</li> <li>Don the appropriate PPE</li> <li>If it is contained in an open baggy, do not attempt to seal the baggy by releasing the air in it as it could become airborne</li> <li>Advise supervisor and follow PPE and exposure prevention policy.</li> </ul>
	High	Large quantities of white powder present in the environment

## PERSONAL PROTECTIVE EQUIPMENT (PPE):

Although experience so far has indicated police officers are at a low risk for exposure<sup>7</sup>, in situations where there is a risk of exposure to fentanyl and its analogs, the precautionary principle should be applied. This principle is an approach used when there is scientific uncertainty regarding the severity of the harm a hazard may cause. In these situations, the highest reasonable level of precautionary measures should be taken. It is recommended that police officers conduct a situational risk assessment and wear the appropriate level of PPE, as required by the employer and established in consultation with the Joint Health and Safety Committee.

Standard personal protective equipment should be worn by police officers who are working with subjects or material suspected or known to have fentanyl or any of its analogues. This may include gowns, aprons, eye protection, booties and (double) nitrile gloves based on the situational risk assessment conducted (including the form and quantity of the drug). As a minimum, fit-tested N95 respirators should be worn if there is a risk of respiratory exposure to the drug. The US Centers for Disease Control (CDC)<sup>8</sup> and FentanylSafety.com<sup>9</sup> can be used as references for examples of additional PPE currently being recommended for law enforcement. Where available, use of soap and water is preferable to ABHRs (alcohol based hand rub (hand sanitizer)). In certain unusual circumstances, such as when water is unavailable and a significant dermal exposure has occurred, using ABHR as an initial decontaminant would be more effective than dry wiping.<sup>12</sup>

## NALOXONE:

Naloxone is a generally safe and effective antidote to overdoses of fentanyl and other opioids. Police officers should follow their service's guidelines on the use of service issued Naloxone.

Due to the high potency of fentanyl and its analogs, multiple doses of naloxone may be needed to treat a fentanyl overdose in member of the public.<sup>1</sup> Naloxone only temporarily blocks the effects of respiratory depression caused by opioids (for 30-90 minutes) so medical attention is still required following its administration to an exposed police officer or a member of the public.

If Naloxone is administered to a member of the public, police officers should also be advised that they may encounter violence and/or aggression from patients experiencing withdrawal symptoms following the intake of Naloxone. Employers also have a legislated responsibility to ensure their workers are protected from workplace violence.

---

## WHERE CAN I FIND MORE INFORMATION?

---

- Health Canada's Action on Opioid Misuse: [http://healthy Canad ians.gc.ca/healthy-living-vie-saine/substance-abuse-toxicomanie/misuse-plan-abus-index-eng.php](http://healthy Canadians.gc.ca/healthy-living-vie-saine/substance-abuse-toxicomanie/misuse-plan-abus-index-eng.php)
- Get Naloxone Kits for Free: <https://www.ontario.ca/page/get-naloxone-kits-free>

- BCCDC Decision Support Tool Administration of Naloxone: [www.bccdc.ca/resource-gallery/Documents/.../Epid/.../NaloxoneDSTUUseforRN.pdf](http://www.bccdc.ca/resource-gallery/Documents/.../Epid/.../NaloxoneDSTUUseforRN.pdf)
- Canadian Centre on Substance Abuse Drug Alerts and Bulletins: <http://www.ccsa.ca/eng/collaboration/ccendu/ccendu-drug-alerts-and-bulletins/pages/default.aspx>
- Safety Data Sheets (example): [http://www.restek.com/documentation/msds/34082\\_useng.pdf](http://www.restek.com/documentation/msds/34082_useng.pdf)
- Fentanyl Safety for First Responders: <https://www.fentanylsafety.com/>
- National Institute for Occupational Safety and Health (NIOSH). Fentanyl: Preventing Occupational Exposure to Emergency Responders: <https://www.cdc.gov/niosh/topics/fentanyl/risk.html>

Disclaimer:

Please note that all information provided is general in nature and may not be appropriate for particular situations or circumstances and is not a substitute for professional advice. In every case, specific and qualified advice should be sought before applying this information. Under no circumstances shall the Public Services Health and Safety Association be responsible for any damage or other losses resulting from reliance upon the information given to you, and all such liabilities are specifically disclaimed to the full extent permitted by law.

PSHSA appreciates the input of OPP Drug Unit, OPP Wellness Unit and TPS Wellness Unit in developing this fast fact."

---

<sup>1</sup> National Institute for Occupational Safety and Health (NIOSH). (2016). Fentanyl: Preventing Occupational Exposure to Emergency Responders. Retrieved from <https://www.cdc.gov/niosh/topics/fentanyl/default.html>

<sup>2</sup> National Institute for Health (NIH). (n.d.), Carfentanil. Retrieved from <https://pubchem.ncbi.nlm.nih.gov/compound/carfentanil#section=Top>

<sup>3</sup> Government of Canada (2016). What is Fentanyl? Retrieved from <https://www.canada.ca/en/health-canada/services/video/fentanyl.html>

<sup>4</sup> RCMP. (2017). What is fentanyl? Retrieved from <http://www.rcmp-grc.gc.ca/en/what-is-fentanyl>

<sup>5</sup> Government of Ontario. (2017). Get naloxone kits for free. Retrieved from <https://www.ontario.ca/page/get-naloxone-kits-free>

<sup>6</sup> Alberta Health Services. (2017). Emergency medical services Opioid Misuse-Interim Guidance for First Responders. Retrieved from [https://www.fentanylsafety.com/wp-content/uploads/OPIOID-MISUSE-INTERIM-GUIDANCE\\_2.pdf](https://www.fentanylsafety.com/wp-content/uploads/OPIOID-MISUSE-INTERIM-GUIDANCE_2.pdf)

<sup>7</sup> British Columbia Ministry of Health. (2017). Guidance statement regarding Personal Protective Equipment for Emergency Medical Services and Health Care Workers dealing with overdose victims.

<sup>8</sup> US Centers for Disease Control (2018). Retrieved from <https://www.cdc.gov/>



---

<sup>9</sup> Fentanyl Safety. (n.d.). Job-Specific Fentanyl Safety for First Responders - Paramedics. Retrieved from <https://www.fentanylsafety.com/job-specific/>

<sup>10</sup> Ontario Police Health and Safety Committee (OPHSC). (2016). Guidance Note 14 Field Drug Testing

<sup>11</sup> Ontario Police Health and Safety Committee (OPHSC). (2010). Guidance Note 5 Personal Protective Equipment for Construction, Mining, Industrial and Health Care Environments

<sup>12</sup> Spilchuck, V. Public Health Ontario. (2018) Response to Scientific/Technical Request – Skin Exposure to Fentanyl and Carfentanil and Decontamination: The Evidence for Avoiding the Use of Alcohol-Based Hand Rub (ABHR).

