POLICE 1

HOW TO BUY

FENTANYL PROTECTION & DETECTION PRODUCTS

Key steps for product selection, purchasing and implementation

Introduction

Fentanyl is a synthetic opioid that can be present in a number of physical or manufactured forms (e.g., powder, pill/tablet, liquid), which presents different on-scene challenges for emergency responders.

According to the DEA, "fentanyl is a synthetic opioid that is 80-100 times stronger than morphine" and its street names include Apace, China Girl, China Town, China White, Dance Fever, Goodfellas, Great Bear, He-Man, Poison and Tango & Cash. Fentanyl is stronger and significantly cheaper than illicit opioid pills or heroin.

Given the heightened awareness of fentanyl and the possibility of exposure, many agencies are looking at how to protect their officers and K9s. Agencies need to know basic information about fentanyl, PPE and decontamination processes so they can prepare their officers and keep them safe.

This Police1 guide provides information on how police departments can assess the fentanyl exposure risks faced by their personnel, and the appropriate protection and detection equipment needed.

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REMINDER: Every department is subject to local or state purchasing rules. Make sure to understand and follow the procurement process for your department and take advantage of services provided by your city or county purchasing department.

KEY CONSIDERATIONS BEFORE PURCHASING FENTANYL PROTECTION & DETECTION PRODUCTS

Accounts of officers who are alleged to have been overcome by fentanyl during a call might be causing responders to worry about their safety. While the risk of transdermal fentanyl exposure is extremely low, exposure to fentanyl does still pose a risk to responders.

Here are several things to consider when your department is purchasing fentanyl protection and detection products:

Follow Industry Guidelines

The American College of Medical Toxicology (ACMT) and American Academy of Clinical Toxicology (AACT) released a Position Statement titled, "Preventing Occupational Fentanyl and Fentanyl Analog Exposure to Emergency Responders." The position is as follows:

"Fentanyl and its analogs are potent opioid receptor agonists, but the risk of clinically significant exposure to emergency responders is extremely low. To date, we have not seen reports of emergency responders developing signs or symptoms consistent with opioid toxicity from incidental contact with opioids. Incidental dermal absorption is unlikely to cause opioid toxicity. For routine handling of drug, nitrile gloves provide sufficient dermal protection. In exceptional circumstances where there are drug particles or droplets suspended in the air, an N-95 respirator provides sufficient protection. Workers who may encounter fentanyl or fentanyl analogs should be trained to recognize the signs and symptoms of opioid intoxication, have naloxone readily available, and be trained to administer naloxone and provide active medical assistance. In the unlikely event of poisoning, naloxone should be administered to those with objective signs of hypoventilation or a depressed level of consciousness, and not for vague concerns such as dizziness or anxiety. In the absence of prolonged hypoxia, no persistent effects are expected following fentanyl or fentanyl analog exposures. Those with small subclinical exposures and those who awaken normally following naloxone administration will not experience long-term effects. While individual practitioners may differ, these are the positions of American College of Medical Toxicology and American Academy of Clinical Toxicology at the time written, after a review of the issue and scientific literature."

Understand the risk environment

The National Institute for Occupational Safety and Health (NIOSH) defines risk environments as follows:

- **Minimal exposure environments:** Where fentanyl presence is suspected but not visible.

  Example: An EMS response to a suspected fentanyl overdose or law enforcement operation where intelligence indicates fentanyl products are suspected but are not visible on scene.

- **Moderate exposure environments:** Where small amounts of fentanyl products are visible.

  Example: An EMS response to a suspected fentanyl overdose or law enforcement operation where fentanyl products are suspected, and small amounts are visible on scene.

- **High exposure environments:** Where liquid fentanyl or large amounts of fentanyl products are visible.

  Example: A fentanyl storage or distribution facility, or fentanyl production laboratory

In minimal-to-moderate exposure environments, the Centers for Disease Control (CDC) recommends that emergency responders don appropriate nitrile gloves, safety glasses/goggles, wrist/arm protection and a disposable N-100 mask for personal protection.

Understand how officers come into contact with fentanyl

NIOSH identifies the following situations where officers might come into contact with fentanyl or its analogues:

Patrol operations: Officers may come into contact with fentanyl during the course of activities such as traffic stops, apprehending and searching subjects, and responding to fentanyl overdose calls.

Investigation and evidence handling: Law enforcement personnel who execute search warrants and collect, transport and store evidence may come into contact with fentanyl. Evidence collection activities could aerosolize powders.

Special operations and decontamination: Officers who conduct special operations where exposure to large amounts of fentanyl are expected include law enforcement officers executing search warrants on opioid processing or distribution sites, or participating in other tactical operations. These activities may aerosolize powders.

Provide training to personnel

According to NIOSH, responders who perform jobs where fentanyl or its analogues are reasonably anticipated to be present should receive special training in conducting an on-scene risk assessment related to fentanyl and its analogues and demonstrate an understanding of the following:

- How to recognize the form and determine the quantity of the suspected fentanyl and other drugs.
- When to use PPE; what PPE is necessary; how to properly put on, use, take off, properly dispose of, and maintain PPE; and the limitations of PPE.
- What the potential exposure routes are for fentanyl and its analogues.
- How to recognize the signs and symptoms of opioid exposure.
- How to treat the symptoms of an opioid overdose.
- When and how to seek medical help.

Conduct an on-scene risk assessment

When fentanyl is suspected, whether it's a minimal-, moderate- or high-exposure environment, a risk assessment must be conducted. This risk assessment involves the following:

- **Evaluate the scene.** Is there any information to suggest the method of potential exposure or hazard? An example of some indicators would be the type of drug paraphernalia or pills present. A good example would be a man down call. If you arrive on scene to a man unconscious in a car and see a syringe in his hand, you should wear proper PPE when handling the call. Your risk for this call is heightened due to indications of a drug overdose.
- **Look for the presence of large volumes of powder.** If you have a scene where you recover large amounts of powdered drugs or pills pressed to look like pharmaceuticals, wear proper PPE when handling the drugs. Fentanyl has been found in every drug we run across on a routine basis. Fentanyl is found in cocaine, methamphetamine, heroin and even in synthetic cannabinoids ("spice") and synthetic cathinones ("bath salts").
- **Find out the background of the location.** What is the history of the location you are looking at? Does the home have a history of drug use or drug sales, especially of opiate drugs? Does the location have a history of being a tableting operation? Fentanyl pills being pressed into pills resembling pharmaceuticals may result in powders from the processing operation becoming airborne.

Use the risk assessment to determine PPE requirements

The COVID-19 pandemic has increased public safety use of PPE exponentially and led to supply chain challenges. Ensure you have the appropriate PPE available to protect your responders. PPE will vary depending on the severity of the environment. Use dispatch information to assess the risk for fentanyl exposure through inhalation or contamination to skin or clothing.

The InterAgency Board – a voluntary collaborative panel of preparedness and response practitioners – has recommended PPE use to prevent exposure to synthetic opioids after a detailed examination of available evidence.

All first responders need to recognize that the exposure level initially identified (minimum, moderate or high) can change and PPE should be adjusted accordingly. Additionally, higher levels of PPE may be necessary to protect responders from exposure to other chemicals that may also be present in addition to fentanyl. To protect emergency responders from exposure to fentanyl, experts recommend the following:

- **Dust mask** to protect against aerosolized fentanyl inhalation. When powdered fentanyl or other drug powders are known or suspected of being aerosolized, respiratory PPE is important since inhalation is the easiest route for accidental fentanyl exposure and mucosal absorption is 30 times faster than transdermal absorption. Wearing a mask is the best initial protection. Wearing a fit-tested N-95 mask or respirator will decrease your overall risk.
- **Nitrile, single-use examination gloves** to protect against skin exposure and transdermal transmission. Nitrile gloves should be worn.
- **Safety glasses** for additional protection from mucosal membrane absorption. Eye protection should be worn.
- **Immediate washing** with soap and water of any exposed skin.
- **Remove and clean** any uniform clothing that might have been contaminated by fentanyl, blood or other potentially infectious material.
- **Wear long sleeves**, like your patrol jacket, when handling drug evidence.

Understand the decontamination process

Responders should always wear gloves, but if their skin is exposed to fentanyl, they should first wipe the visible contamination from their skin. Next, wash skin thoroughly with soap and water, including a second water rinse.

Don't use any alcohol-based sanitizers on fentanyl-contaminated skin. Alcohol increases the rate of transdermal transfer by 100 times. It is increasingly important to train officers on the effects of alcohol-based hand sanitizers as their use has increased dramatically during the COVID-19 pandemic.

Wash your uniform as you would for any stain or dirt. Or unknown fluid or particle exposure.

According to NIOSH, "Skin contact is a potential exposure route, but is not likely to lead to overdose unless large volumes of highly concentrated powder are encountered over an extended period of time."

Fentanyl is water soluble. If it were to get on your skin, washing it away with soap and water should be sufficient protection from the effects of the drug.

Narcotic identification products and detection

A number of options are available to officers to identify narcotics. Field testing that requires direct handling of suspected drug powders is discouraged (by NIOSH) due to safety concerns. This extended period of uncertainty about the contents of the suspicious material is undesirable, as it requires extreme vigilance during handling.

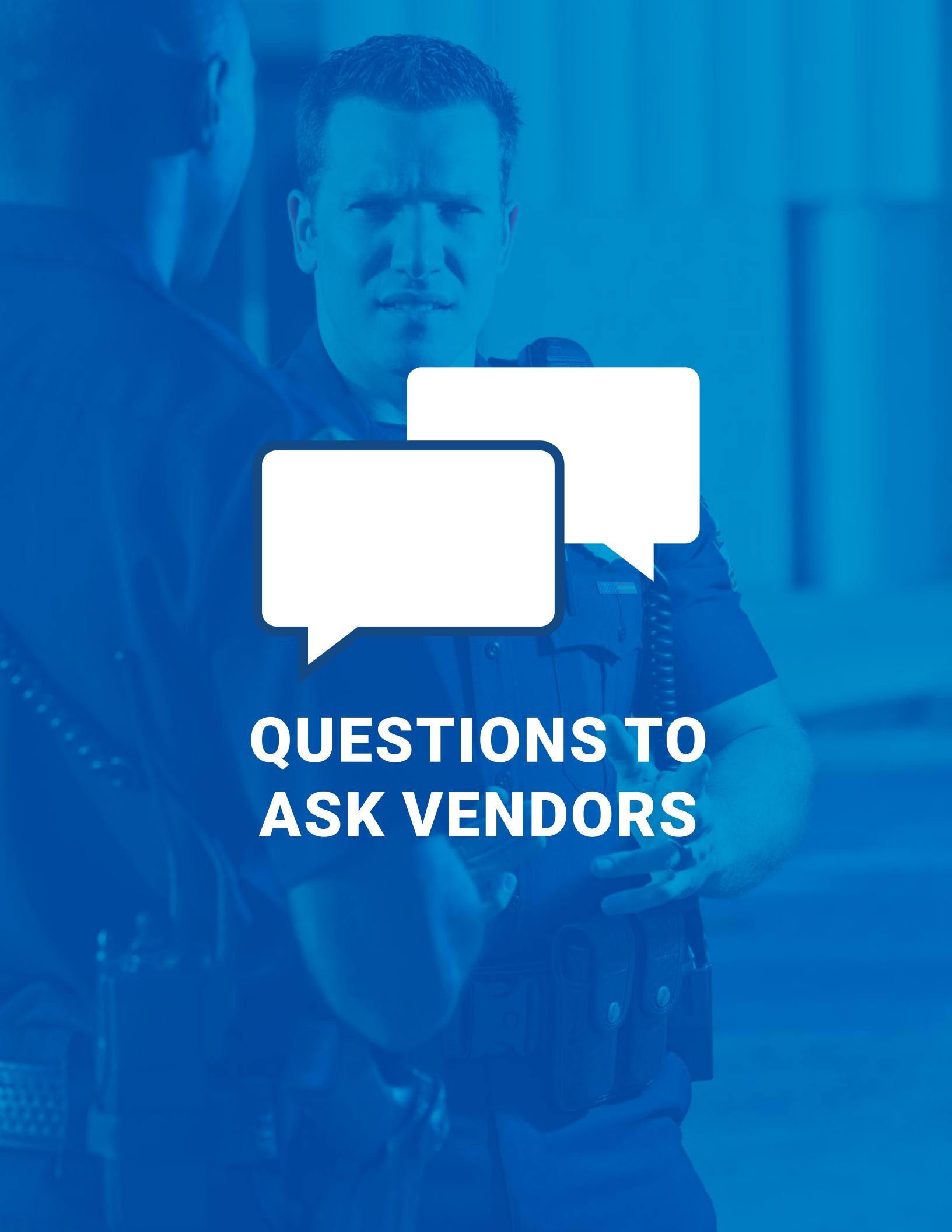
To minimize the period of uncertainty and eliminate handling of samples, scientists from the National Institute of Standards and Technology (NIST) are working toward hands-free field testing. In a 2017 paper published in *Forensic Chemistry*, NIST reports that two technologies, Ion Mobility Spectrometry (IMS) and Direct Analysis in Real Time Mass Spectrometry (DART-MS), can detect trace amounts of fentanyl and other substances.

Disadvantages of IMS include relatively high cost, high false positive rate and the limited number of target chemicals it can detect. While technically portable, a DART-MS device comes in a case that is the size of two large desktop computers. It also needs a compressed nitrogen cylinder and substantial power to send the sample though the test chamber where an electrical discharge produces excited gas molecules for analysis.

A third method for hands-free field testing is the Raman spectral analysis instrument. Raman spectroscopy – essentially a laser light beam – determines the vibrational modes of molecules to identify specific substances that these molecules comprise. The tool does not need to be in direct contact with the material to analyze it, because the light beam can "see" through translucent packaging material.

For rapid fentanyl detection products, find out if the manufacturer holds a DEA license for the purchasing of standards, which allows them to test and update their libraries with certified samples.

NIST has free software to help identify new forms of fentanyl and other illegal drugs. Downloadable here.



QUESTIONS TO ASK VENDORS

A vendor's website (see the directory at the end of this guide) is a great place to start your research and narrow your choices. Be sure to review testimonials from satisfied clients.

As the procurement process advances, contact your top detection and protection product vendor choices and ask specific questions. Disseminate the answers to the decision makers in your department.

Here are some suggested questions to ask vendors during the purchasing process:

Here are important questions to ask about fentanyl protection products:

- Will this mask protect me from fentanyl exposure?
- Is this an N-95 mask?
- Do I need to get fit tested?
- Does every officer need his or her own mask?
- How many times can the officer use the mask?
- Will the mask degrade over time or be compromised by storage in extreme heat or extreme cold?
- How often should the mask be replaced?
- What are you doing to ensure ensure inventory is available for future orders?
- Does our K9 need a mask?
- Are there different masks for K9s?
- What type of gloves do you recommend?
- Are these nitrile gloves (as recommended by NIOSH)?
- Should an officer wear one or two pairs of gloves?
- Are these single-use gloves?
- Do the gloves deteriorate over time or from exposure to extreme heat, extreme cold or UV?
- What type of safety glasses do you recommend?
- Are there any other decontamination products available other than soap and water?

Here are important questions to ask about fentanyl detection products:

- Do you hold a DEA license for the purchasing of standards that allows you to test and update libraries with certified samples?
- What is the expiration date of your fentanyl detection product after purchase?
- Is there a point in time in which the efficacy of the results are compromised?
- Can this product withstand extreme weather conditions, including exposure to heat, cold and moisture?
- Do you have a mobile app for your fentanyl detection product?
- Is the product (IMS and/or DART-MS) portable? How large is it? How much does it weigh?
- Are additional other components needed in order to operate the product (e.g. compressed nitrogen cylinder and/or substantial power)?
- How much does the product cost?
- What is the maintenance for the product in order for it to maintain its efficacy?
- What are the false-positive and false-negative rates?

Your department is sure to have other important questions.Tell the vendor which questions you'd like answered in writing and then forward those responses to the people involved in the purchase.

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