

## Emerging Substance Alert in Marion County

We are writing to inform you of an emerging drug, medetomidine, detected through our syringe surveillance program. It was detected at multiple SSP sites across Marion County. Medetomidine is a surgical anesthetic approved for veterinary use. It is in the same class as other suppressant drugs, such as xylazine. Currently, all syringes in Marion County that contained medetomidine also contain fentanyl or a fentanyl analog.

### Background:

The Center for Forensic Science Research & Education (CFSRE) published a public health alert in May 2024 indicating the spread of Medetomidine in the national recreational opioid drug supply. As seen below, this substance first appeared in late 2022 in Maryland, and as of May 2024, has reached Chicago, IL.

Medetomidine is similar to xylazine but is considered stronger and has a longer duration. Currently, there are no test strips available to identify the presence of medetomidine in substances.

*Table 1: Timeline of Medetomidine (Source: CFSRE)*

TIMEFRAME	DESCRIPTION OF MEDETOMIDINE IDENTIFICATIONS AND OVERDOSE EVENTS
Late 2022	Medetomidine begins appearing more regularly in the <b>Maryland</b> drug supply, following its first detection in July 2022. Medetomidine is commonly identified alongside fentanyl, xylazine, and other substances.
Mid-to-Late 2023	Medetomidine is sporadically identified in toxicology specimens collected from patients presenting to emergency departments after suspected opioid overdose (confirmed to not be administered). Overdose events originated from <b>Missouri, Colorado, Pennsylvania, California, and Maryland</b> . Medetomidine is commonly detected with fentanyl.
January 2024	An <b>alert</b> is issued out of <b>Toronto, ON</b> , about the emergence of medetomidine in the drug supply. This is followed by increased positivity in subsequent weeks and months, as medetomidine is found alongside fentanyl in suspected opioid products and commonly in combination with xylazine and other substances.
Early 2024	Medetomidine detections increase in drug materials and toxicology specimens originating from western Canada, including <b>Vancouver, BC</b> , commonly alongside fentanyl and other opioids.
Late April 2024	Medetomidine first appears in drug products in <b>Philadelphia, PA</b> , causing a large scale outbreak of overdoses and adverse events. Medetomidine is identified alongside fentanyl and xylazine.
Early May 2024	Medetomidine first appears in drug products in <b>Pittsburgh, PA</b> , causing a large scale outbreak of overdoses and adverse events. Medetomidine is identified alongside fentanyl and xylazine.
Early May 2024	Medetomidine first appears in drug products in <b>Chicago, IL</b> , causing a large scale outbreak of overdoses and adverse events. Medetomidine is identified alongside fentanyl and xylazine, or alongside heroin without xylazine.

### Health Impacts:

Like xylazine, Medetomidine can suppress one's central nervous system. Common side effects include the following: Sedation and muscle relaxation, low blood pressure, difficulty breathing, bradycardia, and hallucinations.

### Recommendations:

- **Give Naloxone.** Medetomidine is often found in combination with opioids. It is important to keep naloxone in hand and administer even if you believe the overdose is associated with medetomidine.
- **Rescue Breaths.** Perform rescue breathing, preferably using a mouth shield.
- **Utilize the rescue position.** Lay the person on their side, bend their knee, and turn their face to the side to open airway and prevent choking. More information can be found here: <https://harmreduction.org/issues/overdose-prevention/overview/overdose-basics/responding-to-opioid-overdose/>
- **Manage body temperature.** Use cooling towels or wet paper towels to cool body temperature.

- **Encourage hydration.** Medetomidine is known to increase urination and can increase risk of dehydration.
- **Inform** us if you notice any unusual overdose cases or other information that should be shared with partners.

**References:**

1. Kari M Midthun, Ph.D., Amanda L.A. Mohr, M.S., Thom Browne, Barry K. Logan, Ph.D. Toxic Adulterant Alert: Medetomidine/Dexmedetomidine.; 2023. <https://www.cfsre.org/nps-discovery/public-alerts?emci=49d6a948-5916-ef11-86d0-6045bdd9e096&emdi=aae11603-c216-ef11-86d0-6045bdd9e096&ceid=9750860>
2. Jen Shinefield, Shannon Ashe. Medetomidine what it is and why it matters. May 2024; The Everywhere Project. [https://www.everywhereproject.org/\\_files/ugd/96ac8a\\_563f4ce5a4cd4e92864670a03a26b1bc.pdf](https://www.everywhereproject.org/_files/ugd/96ac8a_563f4ce5a4cd4e92864670a03a26b1bc.pdf)