



Health Alert: Xylazine in the New Jersey Illicit Drug Supply

Overview

Xylazine or “**tranq**” is becoming increasingly more prevalent in the illicit drug supply throughout the United States. Xylazine is a veterinary tranquilizer that is not approved for human use and is not an opioid. On April 12, 2023, the White House Office of National Drug Control Policy (ONDCP) officially designated fentanyl adulterated or associated with xylazine as an emerging threat to the United States and it is increasingly identified in New Jersey’s drug supply.¹

Xylazine may complicate an existing opioid overdose, as it does not respond to naloxone.² On November 8, 2022, the U.S. Food and Drug Administration (FDA) released an alert warning health care professionals about the risks associated with xylazine, including severe wounds, dependence and withdrawal, and complicated toxicity, given that naloxone is not effective in reversing xylazine overdoses since it is not an opioid.³ However, bystanders, emergency responders, and health care providers should continue to administer naloxone in the event of a suspected overdose, as xylazine is nearly always mixed with fentanyl or other opioids. They should also administer other supportive therapies for patients who are non-responsive to naloxone administration (see “What to do During a Suspected Overdose” below).⁴

Accompanying this health alert is a flyer with basic information about the substance including wound care, safer use, overdose reversal best practices, and harm reduction resources that your organization can distribute to people who use drugs and who may be encountering xylazine. If you are interested in receiving additional information/training regarding xylazine, please reach out to Amanda Gan, Public Health Analyst, at Amanda.Gan@doh.nj.gov.

Xylazine Prevalence and Xylazine-Related Deaths

In 2022, one-third of suspected heroin/fentanyl seizures contained xylazine.⁵ For the first quarter of 2023, this proportion increased to 45%.⁶ It is important to note that nearly all xylazine also contains fentanyl: 99% of all drug seizures containing xylazine also contained fentanyl.⁷

There is evidence that xylazine-involved overdose deaths have occurred in NJ since 2016.⁸ However, according to New Jersey’s Unintentional Drug Overdose Reporting System (SUDORS), xylazine-involved overdose death rates significantly increased from 2020 to 2021.⁹ In 2021, nearly 8% of overdose deaths involved xylazine and from January-June 2022 (the latest period with full data abstraction in NJ SUDORS), this proportion increased to 10%.¹⁰ Nearly all xylazine-involved deaths also involve opioids such as fentanyl and heroin, and very often other substances as well.¹¹ Deaths associated with xylazine use are mostly among Non-Hispanic White males, however xylazine has been an increasing factor in fatal overdoses in Black and Hispanic communities as well.¹² By age, most overdose deaths involving xylazine were among adults 25-44 years of age, but approximately 20% of deaths are among those over 55 years of age.¹³

Veterinary Sedative and Pain Reliever

Although xylazine is FDA-approved for use on large animals in veterinary medicine as a sedative and pain reliever, xylazine has been proven unsafe for human use. There are effective xylazine reversal agents used on animals in veterinary medicine, specifically yohimbine hydrochloride, tolazoline, and hydrochloride.

In contrast, in humans, exposure to xylazine may lead to life-threatening symptoms that mimic an opioid overdose, making it difficult to determine whether an individual is experiencing an opioid or xylazine exposure and/or overdose.¹⁴ There are no FDA-approved xylazine reversal agents for humans and there is no evidence supporting veterinary reversal agent safety or efficacy for humans.¹⁵ Therefore, there are currently no overdose reversal agents available specifically for xylazine.¹⁶

Risks Associated with Xylazine Use in Humans

There are various signs and symptoms associated with xylazine exposure and toxicity. Symptoms of exposure/toxicity may include central nervous system (CNS) depression, difficulty breathing, confusion, loss of coordination, coma, hypotension, bradycardia, hypothermia, miosis, and high levels of blood glucose. The symptoms associated with xylazine exposure/toxicity may often mimic the symptoms of opioid toxicity, making it challenging to accurately determine which substance has caused an individual to overdose. Additionally, recurrent xylazine exposure may lead to physical or psychological dependence on the substance, as well as withdrawal symptoms, such as agitation and anxiety, when use is discontinued. Furthermore, individuals exposed to xylazine through intravenous use are at risk of developing severe, necrotic skin wounds that differ greatly from other infections commonly associated with intravenous substance use (i.e., abscesses and cellulitis). Necrotic wounds can develop on various parts of the body and are not always located near the injection site.¹⁷

Wound Care

With intravenous xylazine use, there is a risk for developing severe wounds, which are not always located near the injection site. Xylazine-associated wounds may be complicated to treat and usually require long-term durable dressings.¹⁸ Antibiotics may be indicated if there is active purulence, surrounding erythema, or edema.¹⁹ Xylazine-associated wounds may increase risk for systemic infections such as endocarditis or bacteremia.²⁰

Below are suggestions for self-managing xylazine-related wounds, which should be tailored based on the individual's access to clean water and medical supplies, housing status, and comfort with self-care:^{21,22}

- If wounds develop from xylazine use, try to avoid injecting in or near the wound.
- Keep wounds clean, covered, and change bandages daily or when soiled.
- Thoroughly wash wounds with soap/water or saline after removing bandages.
- Apply a layer of Vaseline to clean wounds before rebandaging.
- Store wound care materials in a clean and dry location.
- Seek medical attention promptly if you develop a fever or if your wound gets bigger, drastically changes in color (i.e., yellow/green/black), or does not appear to be healing after several days.

Recommendations for Health Care Professionals

With the ever-changing landscape of the illicit drug market, overdose occurrences and substance use related conditions are increasingly more complex and therefore difficult for healthcare professionals to treat effectively. Thus, if a patient enters the hospital with a suspected overdose and appears to have

prolonged sedation after being administered naloxone, it is possible that the patient could have potentially been exposed to xylazine or other adulterants.²³ When an individual experiences an overdose, it is critical that healthcare providers are well-equipped with the knowledge, resources, and evidence-based interventions needed to best meet an individual where they are at and help reduce the risk of future overdoses. Some strategies that can be implemented by health care professionals include, but are not limited to:²⁴

- Provide person-centered and trauma-informed care to patients, even if they are not ready to stop using.
- Educate patients on overdose risk-prevention strategies, such as avoiding mixing substances and carrying naloxone (see below “Harm Reduction Recommendations and Safer Use Tips” section).
- Refer individuals to local harm reduction agencies or other trusted, community-based providers available to connect patients to needed resources (i.e., sterile syringes, overdose education, HIV testing, fentanyl test strips, etc.).
- Prescribe medications for opioid use disorder (MOUD) to help a person manage their substance use or provide patients with a warm handoff to appropriate treatment or care.
- If patients are being treated with medication for their substance use disorder, ensure there aren’t barriers making it difficult to receive medication.
- Provide naloxone for patients to take home and educate them on how to use it, as well as on the importance of carrying naloxone when using alone or with others. Share information about how individuals can get additional [naloxone at pharmacies](#) and harm reduction centers, among other locations.
- Share information or provide a warm handoff to [ReachNJ](#).

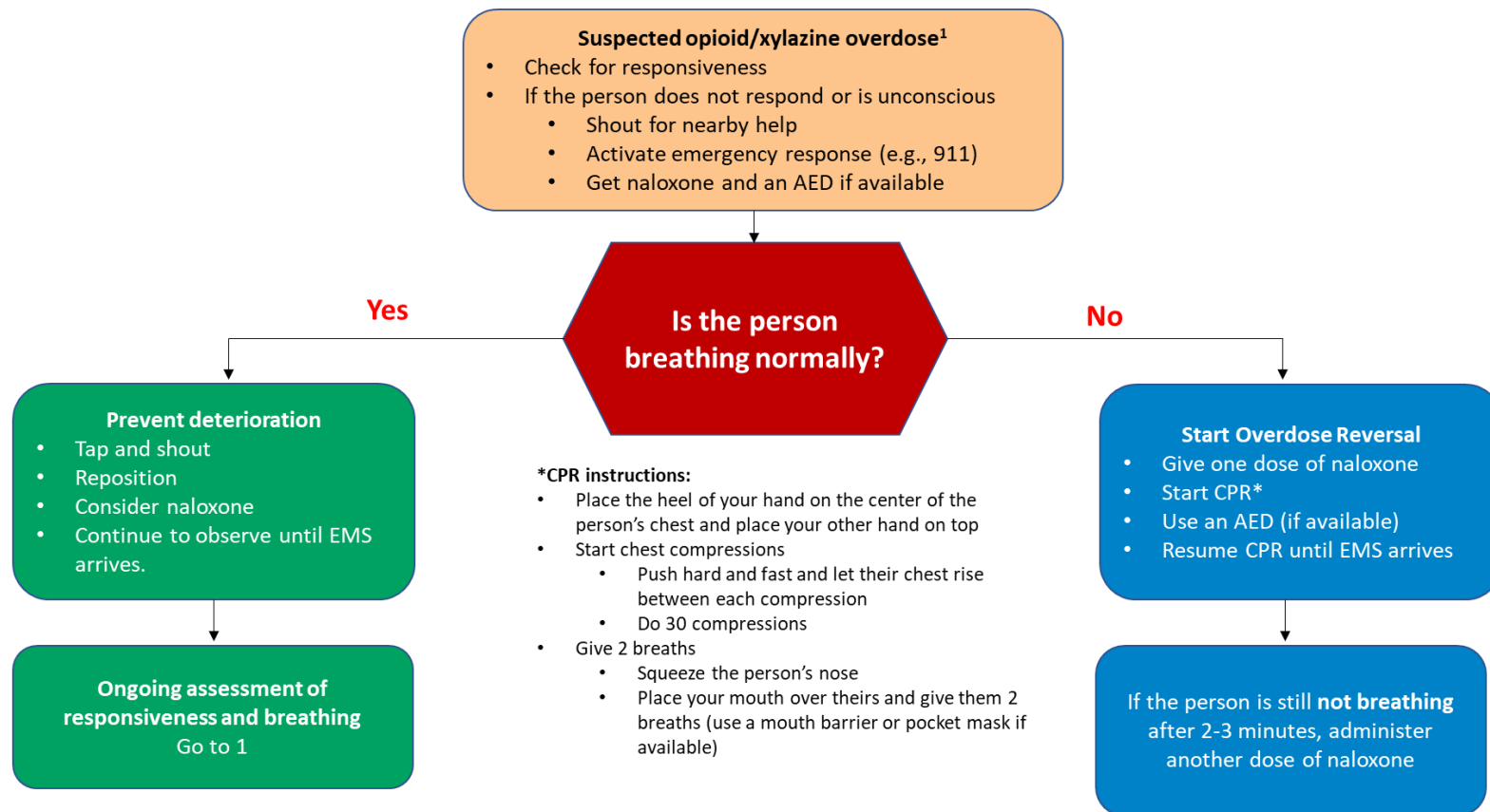
New Jersey’s Overdose Prevention Act

The Overdose Prevention Act, P.L. 2021, Chapter 152, provides criminal and civil liability immunity to any individual, including health care professionals, who administer or prescribe naloxone in good faith.²⁵ In addition, the New Jersey Department of Health (NJDOH) has a [blanket standing order](#) that permits any individual, including health care professionals, to distribute naloxone. Furthermore, the law also requires first responders and healthcare facilities to offer to leave naloxone behind with the patient following an overdose, and to provide information concerning substance use disorder treatment and harm reduction resources.²⁶ The NJ Department of Human Services (NJ DHS) has launched a [Naloxone Distribution Program](#) in partnership with the NJDOH and the Office of Attorney General, which allows eligible agencies the opportunity to request direct shipments of naloxone online anytime they need it.

What to do During a Suspected Overdose

When responding to a possible xylazine involved overdose, remember three key elements: **naloxone**, **rescue breaths**, and **time**.²⁷ Although naloxone has been proven to be ineffective against xylazine, it is still important to administer naloxone during a suspected overdose, as xylazine is almost always mixed with opioids, particularly fentanyl. Timely administration of naloxone will reverse the opioid’s effects, even if the person who overdosed does not wake up immediately.²⁸ It is important to keep in mind that xylazine produces sedation, bradycardia, and decreased perception of painful stimuli, which can have synergistic effects with opioids.²⁹ According to the Philadelphia Health Department, “individuals may remain heavily sedated due to xylazine after reversing respiratory depression due to fentanyl with naloxone. Overdose responders should continue to provide supportive care, such as airway management and supplemental oxygen, to patients with prolonged sedation in the presences of normal respirations.”³⁰

When responding to any overdose, acting immediately is critical for saving a life. If you suspect that someone is displaying signs of a possible overdose, the following steps can be utilized for effective response:



REMEMBER: Overdoses can look different when xylazine is involved. Individuals may be slower to wake up and open their eyes because of xylazine's sedative effects. Checking for breathing and rescue breaths are critical tools since naloxone only reverses effects of opioid overdoses.

1. Adapted from American Heart Association, Opioid-Associated Emergency for Lay Responders Algorithm, https://cpr.heart.org/-/media/CPR-Files/CPR-Guidelines-Files/Algorithms/AlgorithmOpioidLay_Responder_200615.pdf.

Harm Reduction Recommendations and Safer Use Tips³¹

- When using with a partner or group, stagger use between each other if possible.
- **Use Fentanyl Test Strips**
 - Fentanyl can be present in any substance, even when it is least expected. It is recommended to use a fentanyl test strip for each substance purchased, including pills, methamphetamine, cocaine, and other stimulant substances to be best informed regarding the substance and to enable safe/safer decision-making while using it.
- Instead of injecting, **try a different route of administration**, such as snorting or smoking. By changing to a different route of use, a person can potentially reduce the risk of overdose. However, it is important to be very cautious, as overdose can and may still occur.
- **Carry Naloxone**, know how to use it and, if using alone, make sure naloxone is out, visible, and accessible in the event of an overdose.
- **Go slow and use less** of a substance when beginning to use.
 - Fentanyl and xylazine are fast acting adulterants which can be present in any substance. To reduce the risk of overdose or toxicity, start slow, and/or use less when starting to allow some time for the body to adjust to the substance's effects.
- Although it is not recommended to use substances alone, **remote supervision support services** are available for those who do use alone:
 - **Never Use Alone National Hotline:** 800-484-3731 (*English*) | 800-928-5330 (*Spanish*)
 - <https://neverusealone.com/main/>
 - Peer-run call center operations available 24-hours a day, 7 days a week, 365 days per year
 - **The Brave App**
 - An app for people who use alone, can request remote supervision and anonymous overdose support
 - Free to download from app stores
- For more information on safer injection, please visit the [Xylazine in the Drug Supply guide](#) developed by [The National Harm Reduction Coalition \(NHRC\)](#).
- **Connect with a Harm Reduction Center.** Below are locations and contact information for available New Jersey sites:
 - **Asbury Park**

Visiting Nurse Association of Central Jersey, Prevention Resource Network
816 Sunset Ave, Asbury Park, NJ 07712
Phone: 732-502-5100
<http://prnvnacj.org>
Hours of operation: Monday: 9AM to 4 PM, Tuesday: 9 AM to 7 PM,
Wednesday to Friday: 9 AM to 4 PM
 - **Atlantic City**

South Jersey AIDS Alliance Oasis Drop-In Center
32 S. Tennessee Avenue
Atlantic City, NJ 08401
Phone: 609-572-1929
<https://www.southjerseyaidsalliance.org>

Hours of operation: Monday, Wednesday and Friday: 9 AM to 12:30 PM and 1:30 PM to 3:30 PM, Tuesday and Thursday: 9 AM to 12:30 PM and 1:30 PM to 3 PM

○ **Camden**

Camden Area Health Education Center, (AHEC)
Camden Syringe Access Program – Lifeworks
2600 Mt. Ephraim Ave (by Produce Mkt.)
Camden, NJ 08102

Phone: 856-963-2432 Ext. 219

<http://www.camden-ahec.org/sterilesyringeaccess.html>

Hours of operation: Monday 8:30 AM to 11:30 AM and Thursday 8:30 AM to 11:30 AM

○ **Jersey City**

Hyacinth AIDS Foundation, Jersey City
48 Fairview Ave
Jersey City NJ 07304

Phone: 201-360-3910 or 732-447-3174

<https://www.hyacinth.org/about-hyacinth/regional-offices/hudson-county-jersey-city/>

Hours of Operation: Monday and Tuesday: 10 AM to 5 PM, Wednesday: 10 AM to 7 PM, Thursday and Friday: 10 AM to 5 PM

○ **Newark**

North Jersey Community Research Initiative (NJCRI)
393 Central Ave
Newark, NJ 07103

Phone: 973-483-3444

<https://www.njcri.org/community-services>

Hours of operation: Monday and Tuesday: 8 AM to 6 PM, Wednesday: 8 AM to 8 PM, Thursday and Friday: 8 AM to 6 PM

○ **Paterson**

Hyacinth AIDS Foundation, Paterson (Mobile Site)
Montgomery St between River St and Straight St.

Phone: 732-447-3174

<https://www.hyacinth.org/about-hyacinth/regional-offices/passaic-county-paterson/>

www.hyacinth.org

Hours of operation: Monday to Friday 11 AM to 3 PM

○ **Trenton**

Hyacinth AIDS Foundation, Trenton
849 West State St
Trenton, NJ 08618

Phone: 732-447-3174

<https://www.hyacinth.org/about-hyacinth/regional-offices/mercero/>

Hours of operation: Monday: 10:30 AM to 4 PM, Tuesday: 12 PM to 5 PM, Wednesday and Thursday 10:30 AM to 4 PM, Friday 11 AM to 3 PM

- For more information on New Jersey Harm Reduction Services visit:

<https://www.nj.gov/health/hivstdtb/sap.shtml#2>.

Where to get Naloxone

- NJ residents can obtain naloxone freely and anonymously at participating pharmacies. Information and locations are available through ReachNJ: <https://nj.gov/humanservices/stopoverdoses/>.
- In addition to local harm reduction centers, the New Jersey Harm Reduction Coalition mails naloxone kits confidentially and for free to anyone who needs them, regardless of insurance status. You can call or text **1-877-4NARCAN** or visit www.nextdistro.org/newjersey.

Treatment and support

- **ReachNJ** is a 24-hour-a-day, 7 day-a-week hotline where people who have substance use disorder (SUD) or friends and family of people with SUD can get immediate assistance and support from live, New Jersey-based, trained addiction counselors. Call 1-844-ReachNJ (1-844-732-2465) or scan the QR code.



References

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 - ⁴ Philadelphia Department of Public Health. (2022, December 8). *Health update*. Department of Public Health City of Philadelphia. https://hip.phila.gov/document/3154/PDPH-HAN_Update_13_Xylazine_12.08.2022.pdf/
 - ⁵ New Jersey State Police, (2022). Office of Drug Monitoring & Analysis, 2022 Fourth Quarter Report. West Trenton, NJ. February 7, 2023.
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 - ⁸ New Jersey Violent Death Reporting System (NJVDRS) (2023, March). NJ State Unintentional Drug Overdose Reporting System (NJ SUDORS). NJ SUDORS v. 03132023. Center for Health Statistics. Office of Population Health. New Jersey Department of Health.
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 - ¹⁰ Ibid.
 - ¹¹ Ibid.
 - ¹² Ibid.
 - ¹³ Ibid.
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 - ¹⁵ Ibid.
 - ¹⁶ Ibid.
 - ¹⁷ Ibid.
 - ¹⁸ Philadelphia Department of Public Health. (2022, December 8). *Health update*. Department of Public Health City of Philadelphia. https://hip.phila.gov/document/3154/PDPH-HAN_Update_13_Xylazine_12.08.2022.pdf/

¹⁹ Ibid.

²⁰ Ibid.

²¹ Ibid.

²² NASTAD. (2023, April). Wound Care & Medical Triage for People Who Use Drugs and the Programs that Serve Them. <https://nastad.org/sites/default/files/2023-04/PDF-Wound-Care-And-Triage.pdf>

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²⁴ Ibid.

²⁵ The State of New Jersey. (2021). Chapter 152. https://pub.njleg.gov/bills/2020/PL21/152_.PDF

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²⁸ Ibid.

²⁹ Philadelphia Department of Public Health. (2022, December 8). *Health update*. Department of Public Health City of Philadelphia. https://hip.phila.gov/document/3154/PDPH-HAN_Update_13_Xylazine_12.08.2022.pdf/

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