

Understanding Xylazine: An Emerging Concern

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Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration



Central East (HHS Region 3)

PTTC

Prevention Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Xylazine (“tranq”) is a non-opioid sedative and tranquilizer, often found in powder or liquid form. In the United States, it is only approved as medicine for veterinary use.¹ However, human consumption of xylazine—often injected in combination with opioids—is a growing trend across much of the country.² Xylazine can amplify the effects of opioids and cause an opioid high to last longer, which makes it desirable to producers, distributors, and consumers.³ Xylazine presents many dangers, including increased risk of overdose, and SAMHSA has issued an alert to raise awareness of its growing use.

KEY CONCERNS

Overdose Risk

Xylazine can cause respiratory depression. It presents a risk of overdose when used alone and further increases the risk of overdose when used in combination with opioids.⁴

Heart & Blood Pressure Problems

Xylazine is associated with hypertension, hypotension, tachycardia, bradycardia, and dysrhythmia. Other documented effects include hypothermia and hyperglycemia.⁵

Skin & Tissue Damage

Xylazine can cause severe skin ulcers and necrotic tissue damage at injection sites and elsewhere on the body. One study found that almost 40% of people who inject xylazine experience skin and tissue problems.⁶

Treatment Challenges

There are no medications approved to treat xylazine withdrawal.⁷ But replacement therapy with adrenergic agonist medications has shown some effectiveness at treating withdrawal symptoms.⁸

Harm Reduction Barriers

Xylazine tests exist but widespread accessibility remains limited, making detection within substances difficult.⁹ And no overdose reversal medication exists. **Administering naloxone is recommended—as opioids are often involved.**¹⁰

Research & Surveillance Difficulties

Xylazine is not a federally controlled substance. However, it is not approved or intended for use in humans.¹¹ Since it is unregulated, comprehensive data on xylazine use do not exist and available data are likely to be undercounts.¹²

WHAT IS KNOWN ABOUT THE SCOPE OF USE



98%

Seizure increase

Among DEA substance seizures involving xylazine, 2020 to 2021¹³

282%

Fatal overdose increase

Among fatal xylazine-involved overdoses, 2020 to 2021¹⁴

3,089+

Fatal overdoses

In 2021,¹⁵ with epicenters including*:

- Philadelphia: **34%**¹⁶
- Connecticut: **19%**¹⁷
- Maryland: **19%**¹⁸

*% of all fatal overdoses involved xylazine

64%

States report xylazine in outpatient screens

All five Central East states + DC (and 25 of 39 states overall) report positive xylazine urine screenings among outpatient provider clients¹⁹



WHAT PREVENTION & TREATMENT PROFESSIONALS CAN DO

AWARENESS

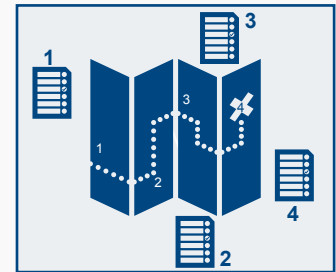


Raise awareness about xylazine use and its risks among public health stakeholders and communities

OVERDOSE RESPONSE

Pursue a comprehensive overdose response strategy, including:

- Provide access to and training on naloxone
- Communicate that naloxone will address the opioid component of a multi substance overdose²⁰
- Teach rescue breathing techniques and the importance of rescue breathing²¹
- Promote contacting emergency medical services²²



HARM REDUCTION



Share wound care information and harm reduction strategies, including:²³

- Wounds start small and can appear anywhere, not only at injection sites
- Keep wounds moist with petroleum jelly or similar products
- Wrap wounds in burn dressings or similar materials
- Do not use alcohol, peroxide, or bleach to clean wounds
- Seek medical attention for wounds

NOTES

¹ NIDA (n/d). Xylazine. <https://nida.nih.gov/research-topics/xylazine>

² DEA (2022). The Growing Threat of Xylazine and its Mixture with Illicit Drugs. <https://www.dea.gov/documents/2022/2022-12/2022-12-21/growing-threat-xylazine-and-its-mixture-illicit-drugs>

³ Ibid

⁴ Ibid

⁵ Ibid

⁶ Reyes, J.C. et al (2011). The Emerging of Xylazine as a New Drug of Abuse and its Health Consequences among Drug Users in Puerto Rico. *Journal of Urban Health* 89(3), doi:10.1007/s11524-011-9662-6

⁷ Philadelphia Department of Public Health (2022). Health Update: Xylazine (tranq) exposure among people who use substances in Philadelphia

⁸ Ehrman-Dupre, R. et al (2022). Management of Xylazine Withdrawal in a Hospitalized Patient: A Cases Report. *Journal of Addiction Medicine* 16(5), 595-598

⁹ Facher, L. (2023). Newly available test strips can detect lethal 'tranq' in drug supply. *STAT news*. <https://www.statnews.com/2023/03/27/tranq-xylazine-test-strips-now-available/>

¹⁰ NIDA (n/d). Xylazine. <https://nida.nih.gov/research-topics/xylazine>

¹¹ Congressional Research Service (2023). Xylazine: Considerations for Federal Control

¹² DEA (2022). The Growing Threat of Xylazine and its Mixture with Illicit Drugs.

¹³ DEA (2022). The Growing Threat of Xylazine and its Mixture with Illicit Drugs.

¹⁴ Ibid

¹⁵ Ibid

¹⁶ Philadelphia Department of Public Health (2022). Unintentional Drug Overdose Fatalities in Philadelphia, 2021. <https://www.phila.gov/media/20221026113548/CHARTv7e3.pdf>

¹⁷ Connecticut Department of Public Health (2022). Drug Overdose Monthly Report.

¹⁸ Friedman, J. et al (2022). Xylazine spreads across the US: A Growing Component of the Increasingly Synthetic and Polysubstance Overdose Crisis. *Drug and Alcohol Dependence* 233 <https://doi.org/10.1016/j.drugalcdep.2022.109380>

¹⁹ Holt, A. et al (2022). Widespread Distribution of Xylazine Detected Throughout the United States in Healthcare Patient Samples. *Journal of Addiction Medicine* DOI: 10.1097/ADM.0000000000001132

²⁰ NIDA (n/d). Xylazine. <https://nida.nih.gov/research-topics/xylazine>

²¹ Brandeis University (n/d). Street Narcotics Alert: Xylazine.

²² Delaware Health and Social Services (2023). Delaware Partner Information Bulletin: Xylazine

²³ Beinert, J. (2023). Webinar: Beyond the Alerts: Practical Guidance for Responding to Xylazine. <https://nastad.org/events/webinar-beyond-alerts-practical-guidance-responding-xylazine>