



What is Xylazine?

- A non-opioid agent that the FDA originally approved in 1972 as a sedative and analgesic for use in veterinary medicine (not FDA approved for use in humans)
- Acts as a central alpha-2-adrenergic receptor agonist in the brainstem (like clonidine)
 - Rapid decrease in the release of norepinephrine and dopamine in the central nervous system (CNS)
 - May also bind to other CNS receptors
- Structurally similar to levamisole, clonidine, and tizanidine
- Recently, xylazine has primarily been identified in the drug supply in combination with heroin and fentanyl. Stimulants (e.g., methamphetamine and cocaine) have also been combined with xylazine
- Xylazine is often an additive/adulterant (slang: ‘cut’) that people do not necessarily know they are using
- Can be injected, snorted, swallowed, inhaled
- Street names: tranq, tranq dope

Signs and symptoms of acute xylazine toxicity:

- CNS and respiratory depression
- Hypotension
- Bradycardia
- Hypothermia
- Miosis
- High blood glucose levels

Complications associated with xylazine use in humans:

- Repeated exposure may result in physical dependence and withdrawal.
 - Withdrawal symptoms include agitation or severe anxiety.
- Severe, necrotic skin ulcerations can develop and **may develop in areas of the body away from site of injection.**
- Naloxone is not known to be effective in reversing xylazine overdose as it is not an opioid, however, **it is still recommended to give naloxone when an overdose occurs** because it is still most commonly mixed with fentanyl/other opioids.

Where is Xylazine?

Maine overdose data

- Xylazine (and non-pharmaceutical tramadol) were identified as co-intoxicants with fentanyl for the first time in 2021
- Among 642 confirmed overdose deaths in 2022 (120 fatal overdoses in 2022 remain unconfirmed, there were 39 cases (6%) with xylazine listed in addition to fentanyl as a cause of death

How do you test for xylazine?

- Xylazine is **not detected by routine toxicology screens**, but even with appropriate testing, overdoses involving xylazine may be underdiagnosed due to its rapid elimination from the body, with a half-life of 23-50 minutes
- You can order a send out test done through LabCorp on a urine sample with 5-7 days analytic time
- Test name is Synthetic opioids, screen with reflexed confirmation, urine (Test: 703025, CPT code: 80307) which tests for variety of fentanyl-related compounds as well as xylazine

How can clinicians help?

- Recognize that people who use drugs often have barriers to seeking medical care, including transportation, stigmatizing experiences, etc.
- Discuss with patients that naloxone may not be fully effective in reversing an overdose if xylazine is involved but that naloxone should be given regardless because it is so often mixed with fentanyl and reversing that with naloxone can restore breathing.
- Talk to patients about overdose prevention, including counseling to not use alone.
- Encourage use of syringe service programs which provide education on overdose prevention, distribute wound care supplies, and can facilitate linkage to care.
- Advocate for drug-checking services in Maine which can help identify contaminants such as xylazine in the drug supply.

- Have on hand and offer wound care supplies pertaining to Xylazine and skin infections (for example, Xeroform dressing, packing strips, Medihoney, Silver agnate etc.). Wound care is a priority, and wounds may need debridement.
- Understand that not all xylazine-associated wounds will need antibiotic treatment, though antibiotics can be considered if there are specific signs/symptoms of infection (erythema, purulence, etc.). If there is concern for systemic infection (ex: infective endocarditis), particularly in the setting of ongoing wounds, then acute care evaluation should be recommended.
- Create specific discharge paperwork on how to care for abscesses & xylazine specific wounds/infections to take review with a wound care clinician and take with them.

Resources

- Never Use Alone Hotline | [Never Use Alone Inc. – 800-484-3731](#)
- National Harm Reduction Coalition | [Xylazine](#) | [Xylazine Info sheet](#)
- FDA warning published November 8, 2022

References

- [FDA warns about the risk of xylazine exposure in humans](#)
- [LabCorp Test Resources](#)
- [Maine Cumulative Monthly Overdose Report for January through May 2022](#)