



Developing a Better Understanding

XYLAZINE

Xylazine also known as “tranq” or “tranq dope” on the streets, has become increasingly present in the illicit drug supply. According to the National Institute on Drug Abuse (NIDA), xylazine is a powerful sedative that can cause drowsiness and amnesia and slow breathing, heart rate, and blood pressure to dangerously low levels. The U.S. Food and Drug Administration has approved xylazine for veterinary use.

Xylazine is often added to illicit opioids and/or cocaine. The drug can be cooked down into a powder form and mixed with illicit opioids such as heroin, fentanyl, and cocaine, or pressed into counterfeit pills or sedatives.

According to the Ohio Department of Health, overdose deaths involving xylazine have increased each year in Ohio since 2019 with 15 overdose deaths in 2019, 45 in 2020, and 75 in 2021. While mortality data for last year hasn't been completed yet, the state Department of Health recorded 113 xylazine-involved overdose deaths as of March 14, 2022. Drug Enforcement Agency (DEA) reporting indicates that the prevalence of xylazine is increasing, spreading beyond the traditional white-powder heroin markets in the northeastern United States where it has been seen for several years. Nationally, the DEA Laboratory System reported that approximately 23% of fentanyl powders and 7% of fentanyl pills seized by the DEA in 2022 contained xylazine, and according to the Ohio Narcotics Intelligence Center some crime labs in Ohio estimate that 25 to 30 percent of today's fentanyl cases also include xylazine.

It should also be noted that a xylazine overdose cannot be reversed with naloxone, so when it is mixed with heroin or fentanyl it can make the use of naloxone much less effective. Even with this, experts still recommend administering naloxone as more often than not xylazine is used or mixed with other opioids such as heroin and fentanyl. It should also be noted that if xylazine was involved, the person may still appear sedated after their breathing returns.

According to a joint intelligence report from the DEA and U.S. Department of Justice, information from users are the main sources of information on the adverse effects of xylazine in humans since standard drug trials have not been conducted. Effects associated with xylazine use include dry mouth, drowsiness, hypertension, and tachycardia followed by hypotension and bradycardia, hyperglycemia, reduced heart rate, hypothermia, coma, respiratory depression, and dysrhythmia. Users who inject xylazine or drug mixtures with xylazine often develop soft tissue injuries that can lead to necrotic tissue and may result in amputation at rates higher than those who inject other drugs without xylazine. Additionally, users may develop a physical dependence to xylazine itself, with some users reporting the withdrawal symptoms from xylazine as, or more, severe than from heroin or methadone; symptoms include sharp chest pains and seizures.

Unfortunately to-date, there is no widely available test for xylazine. Efforts to expand access to xylazine test strips, similar to fentanyl test strips, are underway. When a person has wounds that may look dark, smell and hurt, with no other explanation that can often be a sign that someone is abusing xylazine. It is known to have severe effects physical effects on the body, sometimes disfiguring users, who develop sores, that not only look painful, that often won't heal.

What are symptoms and health risks of xylazine?

According to an FDA Nov Alert, when used in people, xylazine can cause:

- sedation
- difficulty breathing
- dangerously low blood pressure
- slowed heart rate
- wounds that can become infected
- severe withdrawal symptoms
- death

On April 4, 2023, the Substance Abuse and Mental Health Services Administration (SAMSHA) released a Xylazine Alert/Dear Colleague letter with the goal of providing information about the consequences of xylazine exposure, what practitioners can do to mitigate harm, and how SAMHSA is responding to this emerging public health challenge.

Particularly alarming is the finding that routine toxicology tests do not test for xylazine. It may therefore be under-detected and under-accounted for in overdose cases and other life-threatening events. As xylazine is not an opioid, naloxone does not reverse the effects of xylazine. Severe withdrawal symptoms may develop from xylazine, which are, by themselves, unlikely to be managed by medications for opioid use disorder (MOUD) (i.e., methadone, buprenorphine, or naltrexone). Therefore, xylazine presents new potential public health challenges associated with possible withdrawal signs and symptoms.

According to the DEA, the emergence of xylazine across the United States appears to be following the same path as fentanyl, beginning with white powder heroin markets in the Northeast before spreading to the South, and then working its way into drug markets westward. This pattern indicates that use of xylazine as an adulterant will likely increase and be commonly encountered in the illicit fentanyl supply. Xylazine use throughout the United States may also follow the pattern seen in Puerto Rico and emerge as a drug of abuse on its own in the future.

As Ohio has seen this movement and increase in the abuse of xylazine, on March 29th Ohio Governor Mike DeWine signed an executive order directing the State of Ohio Board of Pharmacy to immediately classify xylazine as a Schedule III controlled substance, making Ohio one of the first states in the nation to schedule xylazine as a controlled substance drug.

According to the Office of Governor DeWine, the emergency order was prompted by intelligence gathered as part of an early detection process developed by the Ohio Narcotics Intelligence Center (ONIC) in partnership with RecoveryOhio, the State of Ohio Board of Pharmacy, and local drug toxicologists and chemists. The early detection process, which includes the proactive collection of reports from Ohio's criminal justice system and forensic labs, allows ONIC to identify, analyze, and triage information on emerging drugs of abuse that are not controlled substances.

How can community-based organizations reduce harms of xylazine and opioids/fentanyl mixed with xylazine?

- **Educate the public** about the increasing presence of xylazine in the drug supply and how to respond to suspected xylazine-involved injuries and overdoses.
- **Raise awareness** of the changing illicit drug marketplace and the common use of illicitly manufactured fentanyl with other drugs like xylazine.
- **Provide messaging** to community groups (particularly those providing services to people at higher risk), community leaders, school officials, faith-based leaders, parents, students, and others about the changing illicit drug supply and risks for exposure to strong opioids like fentanyl or fentanyl mixed with xylazine.

Source: Centers for Disease Control and Prevention

Sources: Center for Disease Control and Prevention
National Institute on Drug Abuse
Ohio Narcotics Intelligence Center

Drug Enforcement Agency
Office of Governor Mike DeWine

Food and Drug Administration
Ohio Department of Health

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