

Xylazine Fact Sheet

What is xylazine?

Xylazine is a non-opioid sedative commonly used for procedural sedation in veterinary medicine. Xylazine is in a class of medications called alpha-2 adrenergic agonists. This means it is not an opioid, but instead is more chemically similar to other sedative medications that decrease activity and have a calming, relaxing effect such as clonidine (an antihypertensive medication). Xylazine was never approved by the U.S. Food and Drug Administration (FDA) for use in humans because in clinical trials it caused severe central nervous system (CNS) depression or sedation in humans.

Xylazine is seen primarily as an additive in the unregulated drug supply and is not typically a substance that is used on its own. Although it has been found to be mixed in with other substances, xylazine most commonly is being added to illicitly manufactured fentanyl. Xylazine is described as giving fentanyl 'legs' meaning it may extend the duration of effect that fentanyl has in persons using it. Because xylazine is an additive in the unregulated drug supply, people who use drugs (PWUD) may be using xylazine knowingly or unknowingly. Qualitative research has shown that PWUD have mixed preferences for xylazine, although most PWUD try to avoid using it because of the potential negative health impacts it causes.

Common names for xylazine:

Tranq, tranq dope, anestesia de caballo, Rompun (veterinary medication brand name), AnaSed (veterinary medication brand name)

Where does xylazine come from?

Because xylazine is used commonly in veterinary medicine, it is suspected it is diverted from veterinary sources. Xylazine was first seen as an additive in the unregulated drug supply in Puerto Rico in the early 2000s and began appearing in Philadelphia soon thereafter. Since then, xylazine has spread within the Northeast and continued to spread westward and southward. It is unknown how, when, and where in the unregulated drug supply chain xylazine is being added.

Effects of Xylazine

- **Sedation:** Xylazine causes deep sedation and a heavy nod, especially in the first 20-30 minutes after use, depending on the route of administration. When using substances containing xylazine, a person can be sedated deeply for several hours. This can put them at risk for physical and sexual assault, theft, and medical complications from lying in one position for too long.
 - These medical complications can include
 - Pressure ulcers
 - Blood clots
 - Compartment syndrome: a painful condition where the pressure in and around muscles rises to dangerous levels

- Rhabdomyolysis: a serious medical condition that occurs when muscle tissue breaks down potentially damaging the liver and kidneys
- **CNS depression:** Xylazine causes severe CNS depression in humans which can contribute to muscle relaxation of the tongue which can block the airway and prevent a person from breathing.
- **Overdose:** When using substances that contain both fentanyl and xylazine there is an increased risk for overdose because of the combination of the sedation and CNS depression caused by xylazine coupled with the respiratory depression caused by opioids.

Potential Health Impacts of Xylazine:

- **Skin wounds:** Xylazine use can lead to the development of skin wounds. These wounds can occur in both persons who inject and in persons who do not inject substances. For those who do inject substances, the wounds can occur at the injection site or in places where the person has not injected. Currently, it is unknown why these skin wounds occur both with and without injection use.
 - Xylazine wounds often begin as small bumps with a white or purple center with a dark red fluid
 - These wounds initially appear harmless, but if left untreated they can become more serious and can become infected with bacteria
 - If wounds begin to develop, early treatment and care for them can prevent the wounds from getting worse or infected with bacteria
 - To care for a wound, it is important to keep the wound:
 - **Moist**
 - **Stable in temperature**
 - **Covered**
 - Wash hands before tending to wounds
 - When possible, keep the wound clean with soap and sterile water
 - Avoid cleaning wounds with alcohol, hydrogen peroxide, or hand sanitizer because they will dry out the wound
 - Apply antibiotic ointment, Vaseline, or medical grade honey like MEDIHONEY® (medication brand name) to the affected area
 - Honey has emerged as a [promising](#) wound care treatment because of its antibacterial and wound healing properties
 - Cover the wound with an absorbent pad and non-adherent dressing
 - Avoid wrapping the wound too tightly or too loosely
 - Change the dressing daily, if possible
 - Xylazine caused skin wounds can become infected with bacteria, therefore it is important to continue checking the wound for possible infection
 - Symptoms of a bacterial infection include:
 - Redness
 - Swelling

- Worsening pain
 - Fever
 - Tiredness
 - Increased drainage (pus or fluid)
 - Drainage that is yellow/tan/green
 - Odor/smell from the wound
 - Wound feels hot to the touch
 - Wound increases in size with a black, yellow, or tan color
- Seek medical attention if any of these symptoms begin to develop
- **Physical dependence and withdrawal:** While there isn't yet a defined use disorder associated with xylazine, the unintentional or intentional use of xylazine can contribute to physical dependence and withdrawal symptoms can occur when someone decreases or stops using xylazine.
 - Symptoms of withdrawal may include non-specific anxiety, high blood pressure, increased heart rate, sweating, restlessness, agitation and irritability
 - There are not yet clear recommendations on clinical treatment for xylazine withdrawal; however, case reports suggest there are benefits to using other alpha-2 agonists like clonidine for managing xylazine withdrawal symptoms
- **Overdose:** Because xylazine is often mixed in with fentanyl (an opioid), naloxone (an opioid overdose reversal medication) always should be administered when responding to any suspected overdose. Xylazine is not an opioid, so it doesn't respond to naloxone. However, because xylazine is a sedative, **rescue breathing** is an effective overdose response strategy and should be performed until Emergency Medical Services (EMS) arrive.
 - **Steps for responding to an overdose that might involve xylazine:**
 - **Call EMS** when responding to any suspected overdose
 - **Administer naloxone:** Xylazine is often mixed in with fentanyl, therefore administering naloxone is still the first recommended step in responding to any suspected overdose
 - Once naloxone is administered, the responder should wait at least two minutes before giving an additional naloxone dose
 - **Start rescue breathing:** If a person is not responding to 1-2 doses of naloxone, suspect that the overdose is caused by more than one substance, with possible xylazine involvement, and begin **rescue breathing**
 - In addition to checking for breathing, check for a pulse. If there is no pulse, the recommendation is to perform chest compressions or full CPR, if trained to do so. If not trained to perform CPR, activate EMS immediately.
 - For more information on community overdose prevention and response, please visit the NYS OASAS [Community Overdose Prevention Education](#) webpage

What can I do to reduce the potential harms of using xylazine?

Harm reduction strategies can be tailored to address the deep sedation that xylazine causes. Some ways to reduce the potential harms of using xylazine include:

- Have someone with you when using or call the [Never Use Alone](#) Hotline (800-484-3731) immediately before using
- Start low and go slow
- Try to avoid mixing substances
- Use drug checking methods to test your drugs for the presence of fentanyl and/or xylazine prior to using (see section **Testing for Xylazine in the Drug Supply** below for more information on drug checking)
 - [Fentanyl Test Strips](#)
 - [Xylazine Test Strips](#)
- Since using substances containing xylazine may cause deep sedation for typically 4-8 hours:
 - Try to use in a safe location, with belongings securely stored
 - Try to be in a comfortable seated position
 - It is important to be in a position that doesn't cut off circulation to the arms or legs
 - If injecting substances, use a flexible tourniquet that can be removed easily
 - Persons who are deeply sedated and cannot move themselves easily should be repositioned every 2 hours:
 - Roll the person to the opposite side
 - Smooth out the skin
 - Gently massage/rub areas that appear red or swollen
 - Keep skin as clean as possible
 - Flex and bend the joints
 - When the person awakens, exercise the limbs to improve the circulation and prevent blood clots
 - Monitor for signs of a blood clot, such as redness, swelling, and/or pain in one lower limb, over the next 48 hours or more
- Learn how to perform rescue breathing and keep naloxone nearby so someone can administer it if someone experiences an overdose
 - Xylazine-involved overdose response should include naloxone **AND** rescue breathing

Testing for Xylazine in the Drug Supply

There are some drug checking strategies available to help inform what substances are present in the unregulated drug supply within a community. In addition to these drug checking programs, surveillance drug checking technologies provide community-level information regarding trends in the unregulated drug supply. Surveillance drug checking in New York State has found xylazine present in drug samples, most often mixed in with fentanyl.

- **Point-of-care drug checking:** Point-of-care drug checking technologies allow a sample of the person's drug to be tested rapidly to determine what substances, including xylazine, are present in that sample. The results are given directly to the

person with harm reduction education and strategies so they can adjust their use accordingly.

- In New York City, the Department of Health and Mental Hygiene (DOHMH) launched a point-of-care drug checking pilot project within some Syringe Services Programs (SSPs).
 - OASAS soon will be piloting point-of-care drug checking programs within community Outreach and Engagement Services and harm reduction programs across the state.
- **Xylazine test strips (XTS):** XTS have been researched, and initial findings show they are effective at detecting xylazine in a drug sample. They are now [available commercially](#).

How can I get help for me or my loved one?

- **For help and hope 24/7, call 1-877-8-HOPENY (467369) or text HOPENY (467369). Toll-free and confidential.**
- **The National Suicide and Crisis Lifeline:** call or text 988
- **New York State Service Services Programs (SSPs):** [Syringe Access and Disposal \(ny.gov\)](#)
- [New York State Office of Drug User Health \(ny.gov\)](#)

Related Resources

[OASAS Medical Advisory Panel \(MAP\) Xylazine Guidance](#)

Guidance document providing an overview of xylazine, nascent best practices for xylazine, and frequently asked questions about xylazine.

[Learning Thursdays: Xylazine](#)

Chief of Medical Services Dr. Kelly Ramsey leads this discussion about xylazine, a potent veterinary sedative that has been found in the unregulated drug supply.

[Xylazine: What Clinicians Need to Know](#)

New York State Department of Health

[Xylazine and Fentanyl in the New York City \(NYC\) Drug Supply](#)

New York City Department of Health and Mental Hygiene

[Stay Safer with Xylazine](#)

Prevent Overdose Rhode Island Xylazine-Focused Harm Reduction Resources

[Wound Care & Medical Triage for People Who Use Drugs and the Programs That Serve Them](#)

National Alliance of State & Territorial AIDS Directors (NASTAD) comprehensive guide

[Bevel Up: Safer Drug Use Technique](#)

Safer Use, Overdose Prevention & Other Harm Reduction Tips

[Community Overdose Prevention Education](#)

NYS OASAS: Learn the value of harm reduction and how you can help prevent overdoses in your community.