

Information Bulletin

THE EMERGING THREAT OF XYLAZINE IN THE AMERICAS



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INTRODUCTION

This information bulletin provides a summary of the available information on xylazine, an emerging drug in North America. While there are only a few reports of xylazine in South America and no published information from Central America or the Caribbean, its increase in use is a matter of public health concern. The purpose of this paper is to inform researchers and policymakers in the Americas on the risks associated with xylazine in order to support evidence-based decisions on emerging drugs in the Hemisphere.

What is Xylazine?

Xylazine is a non-opioid deep sedative and muscle relaxant, designed and approved for use in veterinary medicine. It is currently classified as a non-controlled substance at the federal level in the United States and Canada.^{1,2} While it is not intended for use in humans, xylazine has emerged as an opioid additive due to several factors, including ease of access, low cost, and the long-lasting high it produces in combination with other drugs.³ It is sold commercially, including under the brand names Rompun, AnaSed, Sedazine, and Chanazine, for as little as USD\$6 per kilogram.⁴ Colloquially, it is known in English as “tranq,” “tranq dope,” “zombie drug,” or “sleep-cut” and in Spanish as “anestesia de caballo” (horse anesthetic).^{5,6}

Xylazine use has been well-documented since the early 2000s, where the first known use among humans occurred in rural cattle-ranching and racehorse breeding towns in Puerto Rico. Use increased across the rest of the United States and is now widespread throughout the country. Xylazine use continued to move beyond the United States and has been identified in several countries across the Americas.

Why People Use Xylazine

Xylazine’s effects are similar to opioids, but the “high” is much shorter when it is used alone. It is often added to illicit opioids to prolong their euphoric effects – especially fentanyl. Mixing xylazine with fentanyl has presented a major vector for xylazine use to expand within and beyond people who use opioids, as fentanyl is often added to other substances, including non-opioids. Xylazine is frequently used in combination with stimulants and benzodiazepines.^{7,8}

Xylazine use occurs both intentionally and unintentionally. Some people knowingly use xylazine for its own effects or to extend the effects of other substances; however, because it is also used as an adulterant, many people may be unaware that they are using xylazine.⁹ Due to its sedative properties and lethality, xylazine has also been reportedly used to commit criminal acts, such as sexual assault and intentional poisoning.

How Xylazine Is Consumed

Xylazine is produced as a liquid solution that can be converted to a powder, which often appears white or brown. It can be mixed into other powders or pressed into pills. Xylazine has a rapid onset – usually beginning within minutes. Depending on the dose, mode of ingestion, and other substances used, the effects of xylazine can be extended to last eight or more hours. It is most commonly used with fentanyl, heroin, and cocaine. When use emerged in Puerto Rico, xylazine was commonly injected along with a speedball – a mixture of heroin and cocaine.¹⁰

Xylazine can be used by:

- | | |
|------------------------------------|-------------------------------------|
| <input type="checkbox"/> Injection | <input type="checkbox"/> Swallowing |
| <input type="checkbox"/> Smoking | <input type="checkbox"/> Inhaling |
| <input type="checkbox"/> Snorting | |

The Dangers of Using Xylazine

There are many dangers associated with using xylazine, including:

- | | |
|--|---|
| <input type="checkbox"/> Drowsiness | <input type="checkbox"/> High blood sugar |
| <input type="checkbox"/> Memory loss | <input type="checkbox"/> Loss of physical sensation |
| <input type="checkbox"/> Dangerously slow breathing | <input type="checkbox"/> Soft tissue infection |
| <input type="checkbox"/> Lowered heart rate and blood pressure | <input type="checkbox"/> Withdrawal |
| <input type="checkbox"/> Blurred vision | <input type="checkbox"/> Coma |
| <input type="checkbox"/> Disorientation | <input type="checkbox"/> Death |

Xylazine use can lead to soft tissue infections, which cause serious skin ulcers, abscesses, and necrotic tissue. These infections can take months or years to heal and can progress to the point of requiring amputation.¹¹ They can appear anywhere on the body, not only at the point of injection. These wounds are often difficult to treat and may require intensive medical care and support.

Xylazine-involved overdoses pose another significant danger, especially in conjunction with opioids. Overdose symptoms can appear similar to an opioid overdose, even if opioids are not present. Because xylazine is often mixed with opioids, current best practices for a suspected xylazine overdose include naloxone administration and airway management maneuvers, such as rescue breathing.¹² Naloxone will not reverse the effects of xylazine because xylazine is not an opioid, but both drugs are frequently used together. Naloxone will only address the opioid component of an overdose.¹³

Xylazine can also produce withdrawal, with symptoms including anxiety, insomnia, distress/unease, jitters, and severely high blood pressure. Currently, there are no standard treatment protocols for xylazine withdrawal. Replacement therapy, symptom management, and treatment protocols for opioid withdrawal may provide relief and support.¹⁴

Scope of Use in the Americas

As an emerging substance of concern, there are no comprehensive data on xylazine in the Americas. Data are not currently available from surveys, administrative datasets, or clinical contexts. Healthcare providers do not routinely screen for xylazine, in part because it only remains in the body for a very short time after ingestion. Test strips have been developed to check for xylazine in other drugs, but their efficacy is still being studied.¹⁵

NORTH AMERICA

Country	Key Information and Stats
Canada	<ul style="list-style-type: none"> <input type="checkbox"/> Xylazine use was first identified in 2001 but grew significantly around 2019 <input type="checkbox"/> The highest rates have been observed in British Columbia, Alberta, and Ontario <input type="checkbox"/> Xylazine is most often detected in fentanyl and nonmedical benzodiazepines <ul style="list-style-type: none"> o Xylazine in fentanyl samples tested by Health Canada’s Drug Analysis Services (HC DAS) increased from 1.4% (2020) to 6.9% (May 2022) <input type="checkbox"/> 93% of the xylazine in HC DAS samples was in powder form
Mexico	<ul style="list-style-type: none"> <input type="checkbox"/> Currently there is no available information on of the scope of xylazine use or seizures in Mexico
United States	<ul style="list-style-type: none"> <input type="checkbox"/> Xylazine use began around 2001 in Puerto Rico and 2006 in the continental U.S., where it was initially concentrated in the Northeast <input type="checkbox"/> Fentanyl mixed with xylazine has been found in 48 out of 50 U.S. states <input type="checkbox"/> Substance use deaths involving xylazine increased 1,238% from 2018 to 2021, from 260 to 3,480 <input type="checkbox"/> 23% seized of fentanyl powder and 7% of fentanyl pills contained xylazine in 2022



SOUTH AMERICA

Little information is available on xylazine use in South America. Use on the continent is likely lower than in North America. Xylazine is most commonly used in combination with opioids, which are generally low prevalence drugs across South America.¹⁶ Still, xylazine contamination presents a risk among people using opioids in South America. The Public Health Institute of Chile issued an alert in 2022, cautioning that xylazine is regularly found in the illicit drug supply.¹⁷ Chilean law enforcement has also seized a shipment of fentanyl laced with xylazine.¹⁸

Similarly, countries where opioid use exists, in particular injection opioid use, are at greater risk for the appearance of xylazine. These countries should remain aware of the potential for it to appear. For example, Colombia, which has a documented history of heroin use including injection, should ensure that its early warning system is prepared to detect the signs and symptoms associated with xylazine use, and that forensic laboratories have the capacity to test for it.

People in South America who use stimulants are also at risk, because xylazine is used as an adulterant in non-opioids. This is particularly important given that stimulant use is generally much higher than opioid use across South America - especially cocaine. Therefore, risk of xylazine exposure may be higher in South America than rates of opioid use suggest. In another report from Chile, a recent chemical analysis, published in 2022, of 200 ecstasy samples found that 3% contained xylazine.^{19,20}



CENTRAL AMERICA AND THE CARIBBEAN

While there are no reports of xylazine in Central America or Caribbean countries, it will be important for these subregions to remain vigilant to the possibility of xylazine appearing as an adulterant in other drugs of use. This is particularly important given that there is already a long history of mixing xylazine with heroin in neighboring islands such as Puerto Rico. Countries in these subregions where injection heroin use exists, such as the Dominican Republic should be aware of the symptoms associated with xylazine, such as skin lesions around injection points, as such symptoms may be an indicator of xylazine in the market. Finally, given that xylazine is easily mixed with drugs such as cocaine, it is important for all OAS member states to be cognizant of the risks associated with its use.

In Central America and the Caribbean, only El Salvador, Barbados, and Trinidad and Tobago have developed early warning systems on drugs and the Dominican Republic is currently in the process of creating one. Developing a robust EWS is an important first step to detecting emerging substances such as xylazine.



CONCLUSIONS

- 1. Xylazine is an emerging drug in North America, usually associated with fentanyl, heroin, or cocaine.**
- 2. Xylazine can be used in almost any form: injection, smoking snorting, swallowing, or inhaling, making it a versatile cutting agent.**
- 3. It has a variety of deleterious health effects, most notably the potential for soft tissue infections, which cause serious skin ulcers, abscesses, and necrotic tissue.**
- 4. While there is little information on its use in South America and no current information from Central America or the Caribbean, it is important for member states to be aware of the potential health risks associated with its use.**
- 5. Countries most at risk for xylazine are those that already are experiencing opioid use, especially injection heroin use, and stimulants such as cocaine.**

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