

# Substance Use Trend

August 2022

# **Xylazine: An Emerging Substance Increasingly Linked** to Drug Overdose Deaths Nationwide

Xylazine is a veterinary tranquilizer used as a sedative and muscle relaxant for animals such as cattle, horses, sheep, etc. during surgical procedures. This substance is not approved for human use, however, recent reports indicate an increase in xylazine prevalence mixed and used with substances like heroin, fentanyl, and cocaine.1 Use of xylazine, via oral ingestion, inhalation, and, most commonly, injection may be intentional or accidental to prolong drug effects or increase street value by adding net weight.<sup>2-4</sup> Xylazine can cause drowsiness, amnesia and slow breathing, increased heart rate, and blood pressure.<sup>2-4</sup> Xylazine, in combination with other nervous system depressants like alcohol or benzodiazepines, increases risk of overdose.<sup>4</sup> More so, xylazine is not an opioid and the effectiveness of naloxone in some overdoses may be compromised.<sup>4</sup> Long-term use causes skin ulcers, abscesses, and related complications.<sup>4</sup>

# **Xylazine in the U.S.**

Overdoses involving xylazine have been primarily found in the Northeast but is spreading throughout the US.<sup>2,3</sup> Xylazine has become increasingly involved with overdose deaths rising nationally from 0.36% in 2015 to 6.7% in 2020.<sup>5</sup> Illicitly manufactured fentanyl, cocaine, benzodiazepines, and heroin are often present in xylazine-related overdose deaths.<sup>6</sup> From 2019-2020, the prevalence of overdose deaths with xylazine rose 44%.<sup>6</sup> The National Forensic Laboratory Information System (NFLIS) identified xylazine in over 3,800 drug reports from 2015 through 2020, with the largest recording in 2020 with 1,492 reports.<sup>1</sup>

# Xylazine in Florida

Although not required to report xylazine death occurrences to the State of Florida Bureau of Vital Statistics, in 2020 many districts medical examiners

reported deaths with xylazine.<sup>7</sup> A total of 99 occurrences were reported in Florida from January-December 2020 while the 2021 Medical Examiner's Commission Interim Report indicates that 112 occurrences were reported from district medical examiners from January- June 2021 (Figure 1).<sup>7</sup> This data suggests that there could be an estimated 224 occurrences for calendar year 2021.<sup>7</sup>

# Xylazine Occurrences in Florida

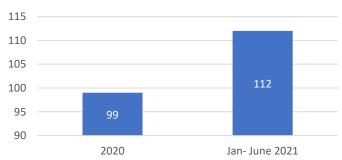


Figure 1: Number of Xylazine Occurrences in Florida from 2020 to First Half of 2021. Source: <u>FDLE</u>

# Recommendations

Public health departments and poison control centers should be aware of this new substance.<sup>1</sup> In addition, medical examiners, toxicologists, and behavioral health providers should test for xylazine to determine the level of xylazine use in their communities.<sup>5</sup> Further resources and services are needed for people who inject drugs who may be at risk for complications associated with xylazine.<sup>5</sup> Xylazine intoxication may require resources such as blood pressure support with intravenous fluids, heart medication, and extended hospital observation due to cardiac effects.<sup>3</sup> For more information, please visit the following websites:





# **Additional Information Sources:**

**National Drug Early Warning System (NDEWS)** 

### References

- 1. Drug Enforcement Agency (2021). Xylazine. Retrieved from https://www.deadiversion.usdoj.gov/drug\_chem\_info/Xylazine.pdf
- 2. Center for Disease Control and Prevention (2021). Notes from the Field: Xylazine detection and involvement in drug overdose deaths- United States, 2019. https://www.cdc.gov/mmwr/volumes/70/wr/mm7037a4.htm
- 3. Center for Disease Control and Prevention (2021). Notes from the Field: Xylazine, a veterinary tranquilizer, identified as an emerging novel substance in drug overdose deaths- Connecticut, 2019-2020. Retrieved from <a href="https://www.cdc.gov/mmwr/volumes/70/wr/mm7037a5.htm?scid=mm7037a5">https://www.cdc.gov/mmwr/volumes/70/wr/mm7037a5.htm?scid=mm7037a5</a> w#contribAff
- 4. National Institute on Drug Abuse (2021). Xylazine. Retrieved from <a href="https://nida.nih.gov/research-topics/xylazine">https://nida.nih.gov/research-topics/xylazine</a>
- 5. Physician's Weekly (2022). Xylazine spreads across the US: A growing component of the increasingly synthetic and polysubstance overdose crisis. Retrieved from <a href="https://www.physiciansweekly.com/xylazine-spreads-across-the-us-a-growing-component-of-the-increasingly-synthetic-and-polysubstance-overdose-crisis">https://www.physiciansweekly.com/xylazine-spreads-across-the-us-a-growing-component-of-the-increasingly-synthetic-and-polysubstance-overdose-crisis</a>
- 6. Psychiatric News (2022). Xylazine increasingly found in overdose deaths. Retrieved from https://psychnews.psychiatryonline.org/doi/10.1176/appi.pn.2022.07.6.5
- 7. Florida Department of Law Enforcement (2021). Drugs Identified in Deceased Persons 2021 Interim Drug Report by Florida Medical Examiners. Retrieved from <a href="https://www.fdle.state.fl.us/MEC/Publications-and-Forms/Documents/Drugs-in-Deceased-Persons/2021-Interim-Drug-Report-FINAL.aspx">https://www.fdle.state.fl.us/MEC/Publications-and-Forms/Documents/Drugs-in-Deceased-Persons/2021-Interim-Drug-Report-FINAL.aspx</a>