

Current Issues in OUD: Fentanyl and Xylazine Update

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LOGISTICS

- » Recording and slides will be sent to all registrants/attendees within one week of webinar
 - » All webinars are also posted to <https://addictionfreeca.org/project/mat-in-jails-and-drug-courts>
- » Please utilize the chat and/or Q&A feature to ask questions – for any questions not answered during webinar, please email MATinCountyCJ@healthmanagement.com

AGENDA

Welcome

Fentanyl:
background
and updates

Xylazine:
background
and updates

Q&A

LEARNING OBJECTIVES





1. Differentiate treatment approaches and treatment outcomes for heroin compared to fentanyl
2. Review national and local data regarding xylazine distribution
3. Discuss interventions for detecting xylazine & xylazine overdose and withdrawal

FENTANYL BACKGROUND

- » Fentanyl is found in
 - Illicit opioids, stimulants, benzodiazepines powdered and pills, cannabis vape products
 - 99% of oxycodone pills submitted to crime lab contain fentanyl
 - 60% contain lethal amounts of fentanyl
- » Inadvertent skin contact does not result in overdose
- » Rapid onset of action and rapid redistribution to fat cells
 - » Able to detect in toxicology for longer

Prior Webinars

-  [Current Issues in OUD: Focus on Fentanyl \(2-24-2022\)](#)
-  [Updates on Opioids - Fentanyl and Xylazine \(6-3-2022\)](#)

Sources:

- <https://www.dea.gov/alert/dea-laboratory-testing-reveals-6-out-10-fentanyl-laced-fake-prescription-pills-now-contain>
https://www.fentanylawarenessday.org/files/ugd/89faea_e40da0d83dd745a1bf1139db47af8bba.pdf
- https://www.dea.gov/sites/default/files/2020-01/2019-NDTA-final-01-14-2020_Low_Web-DIR-007-20_2019.pdf
- <https://drugabusestatistics.org/drug-overdose-deaths/>
- <https://www.cdc.gov/drugoverdose/featured-topics/VS-overdose-deaths-illicit-drugs.html>
- <https://www.cdc.gov/stopoverdose/fentanyl/>
- https://www.dea.gov/sites/default/files/2021-12/DEA-OPCK_FactSheet_December%202021.pdf
- https://www.dea.gov/sites/default/files/2020-09/Fentanyl%20Used%20in%20Vape%20Pens_PRB%20FINAL.pdf

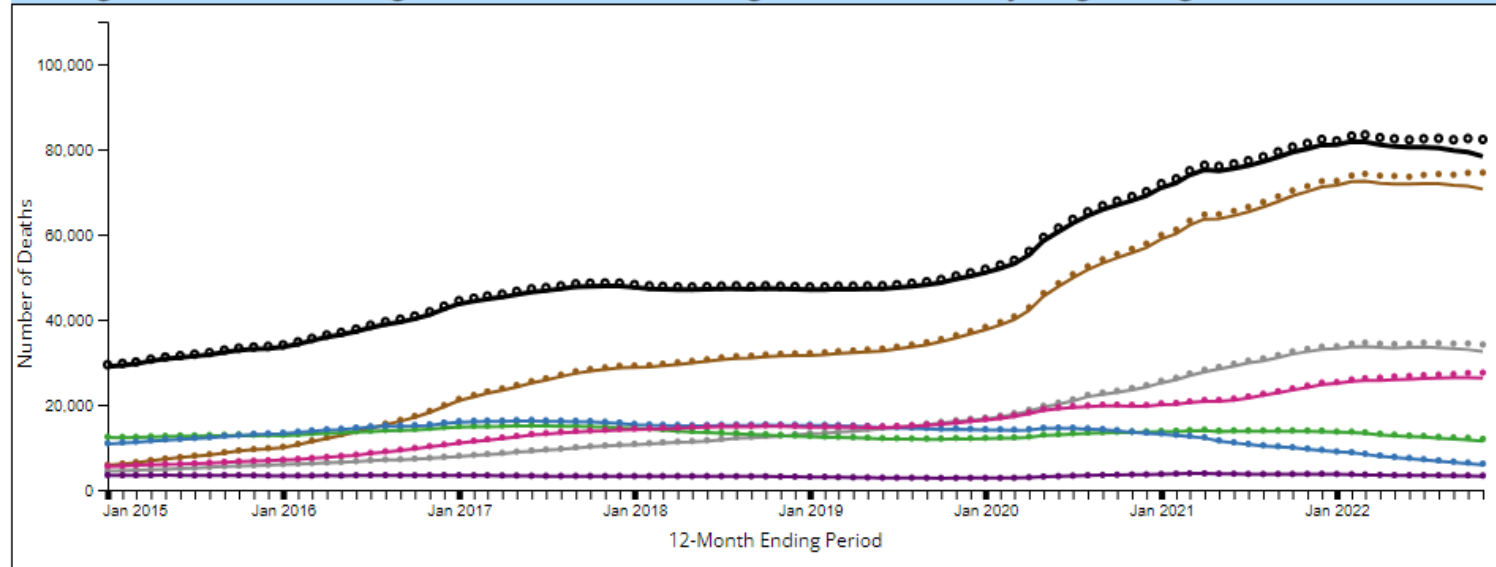
OPIOID & SYNTHETIC OPIOID OVERDOSES

Based on data available for analysis on: April 2, 2023

After opening the **drug class dropdown**, click the top of the dropdown menu again to make the checkboxes disappear.

Select Jurisdiction: Select specific drugs or drug classes:

Figure 2. 12 Month-ending Provisional Number of Drug Overdose Deaths by Drug or Drug Class: United States



CA 2021 data - (latest available)

- 7,175 deaths related to any opioid overdose
- 5,961 deaths related to fentanyl overdose

Legend for Drug or Drug Class

Cocaine (T40.5)	Psychostimulants with abuse potential (T43.6)	--- Reported Value
Heroin (T40.1)	Synthetic opioids, excl. methadone (T40.4)	○ Predicted Value
Methadone (T40.3)		
Natural & semi-synthetic opioids (T40.2)		
Opioids (T40.0-T40.4,T40.6)		

Source: <https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm>; <https://skylab.cdph.ca.gov/ODdash/?tab=Home>

FENTANYL UPDATES

FENTANYL ADULTERATED AND
OR FENTANYL SUBSTITUTED HEROIN
(FASH)



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BUPRENORPHINE TREATMENT OUTCOMES


» CA Data


- » COWS \geq 8 AND objective evidence of withdrawal; start 8mg buprenorphine
 - » Toxicology not conducted; 10% reported using fentanyl
 - » Results: <2% reported withdrawal
 - » Follow up rates between those with & without fentanyl use similar

» National Data

- » COWS \geq 8; start 8mg buprenorphine or extended-release buprenorphine
 - » Toxicology tested; many study sites high incidence of fentanyl use
- » Results: <1% incidence of precipitated withdrawal

Articles

 [High-Dose Buprenorphine Initiation in the Emergency Department Among Patients Using Fentanyl and Other Opioids](#)

 [Incidence of Precipitated Withdrawal During a Multisite Emergency Department–Initiated Buprenorphine Clinical Trial in the Era of Fentanyl](#)

BUPRENORPHINE TREATMENT OUTCOMES

- » Retention rate: fentanyl + group = heroin + group
- » Opioid abstinence: fentanyl + group = heroin + group

The bottom line:

For most patients we can start buprenorphine in the same way we have historically.

However, for those patients who have trouble initiating they may need alternative dosing strategies or a higher level of care to start treatment.

WHAT CAN WE DO ABOUT FENTANYL

»» Test for it

»» Education

»» Overdose prevention

»» Naloxone

»» Rescue breathing



[Fentanyl Test Strips Resources available on CA Bridge's website](#)

- Alameda
- Butte
- El Dorado
- Fresno
- Humboldt
- Lake
- Inyo
- Kern
- Kings
- Lake
- Lassen
- Los Angeles
- Marin
- Mendocino
- Mono
- Monterey
- Nevada
- Plumas
- Riverside
- Sacramento
- San Diego
- San Francisco
- San Joaquin
- San Luis Obispo
- San Mateo
- Santa Barbara
- Santa Clara
- Santa Cruz
- Shasta
- Sierra
- Siskiyou
- Solano
- Sonoma
- Stanislaus
- Ventura
- Yolo



BAJA CALIFORNIA

- » 40 pharmacies that cater to US tourists in Northern Mexico
- » Researchers requested in English “Oxycodone, Xanax or Adderall” and obtained single pills without a prescription
- » Counterfeit pills were obtained from 27% of the pharmacies
 - » 82% “Adderall” contained methamphetamine
 - » 30% “Oxycodone” contained fentanyl
 - » 11% “Oxycodone” contained heroin
 - » 1 “Vicodin” contained lactose and tramadol but no hydrocodone

Source: reported on in newspapers in CA and national news, but not published in a peer reviewed journal

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9901047/>

FENTANYL AND XYLAZINE EMERGING THREAT

»» DEA Report Oct 2022

- »» 2020 to 2021 forensic lab identification of xylazine rose 193% in the south and 112% in the west
- »» Mixed with opioids and stimulants
- »» Xylazine positive overdose deaths increased by 1,127% in the south, 750% in the west, compared to 100% in the northeast where it is highest overall

»» Office of National Drug Control Policy

- »» 4-12-23 Press Release Emerging Threat

Sources: <https://www.whitehouse.gov/ondcp/briefing-room/2023/04/12/biden-harris-administration-designates-fentanyl-combined-with-xylazine-as-an-emerging-threat-to-the-united-states/>
<https://www.dea.gov/sites/default/files/2022-12/The%20Growing%20Threat%20of%20Xylazine%20and%20its%20Mixture%20with%20Illicit%20Drugs.pdf>
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9128597/>
<https://www.fda.gov/drugs/drug-safety-and-availability/fda-alerts-health-care-professionals-risks-patients-exposed-xylazine-illicit-drugs>

XYLAZINE BACKGROUND

- » What is it?
 - » Alpha 2 adrenergic receptor agonist (like clonidine)
 - » Approved by FDA as a veterinary anesthetic (sedating & muscle relaxing)
- » Why add this to other drugs?
 - » Longer acting & less respiratory depression than fentanyl
- » What are the dangers associated with use?
 - » Slow breathing, low blood pressure, slow heart rate
 - » Sedation, coma
 - » Body temperature changes
 - » Heart and kidney problems
 - » Skin necrosis
 - » Increased risk of overdose, that does not respond to naloxone



FIGURE 1: Black and green necrotic and scaly lesions of the patient's forearms.

XYLAZINE UPDATES

TRANQ DOPE
ZOMBIE DRUG



XYLAZINE HAS BEEN FOUND IN CA

- » LA County medical examiner
 - » <http://publichealth.lacounty.gov/eprd/lahan/alerts/LAHANXylazine022423.pdf>
- » Marin County wastewater
 - » https://www.marinhhs.org/sites/default/files/files/public-health-updates/advisory_-_xylazine_presence_in_illicit_drug_supplymw.pdf
- » San Francisco: 4 xylazine and fentanyl OD 2023
 - » <https://www.sfcddcp.org/wp-content/uploads/2023/02/Health-Alert-Xylazine-Identified-in-Overdose-Decedents-SFDPH-FINAL-02.16.2023.pdf>
- » San Diego
 - » <https://www.sandiegouniontribune.com/news/public-safety/story/2023-01-15/fentanyl-animal-tranquilizer-san-diego>
- » Santa Clara: xylazine and fentanyl OD 2023
 - » <https://news.sccgov.org/news-release/first-xylazine-death-confirmed-santa-clara-county>

“Xylazine is making the deadliest drug threat our country has ever faced, fentanyl, even deadlier. DEA has seized xylazine and fentanyl mixtures in **48 of 50 States**. The DEA Laboratory System is reporting that in 2022 approximately 23% of fentanyl powder and 7% of fentanyl pills seized by the DEA contained xylazine.”
- DEA Administrator, Anne Milgram

<https://www.whitehouse.gov/ondcp/briefing-room/2023/04/26/nejm-publishes-ondcp-op-ed-on-the-medical-and-public-health-imperatives-surrounding-xylazine-which-dr-gupta-designated-as-an-emerging-drug-threat-to-the-nation/>

HARM REDUCTION AND XYLAZINE USE

Test your drugs

Intoxication

- Teach about rapid onset of severe sedation
 - Don't use
 - In dangerous situations
 - near railroad tracks
 - where you might be taken advantage of
 - Standing up
 - Sitting
 - If using
 - Lie down on soft surface
 - Roll every 2 hours
 - Place padding under bony areas
 - Know the signs of rhabdomyolysis

Xylazine Test Strips

- » The Center for Forensic Science Research & Education. Evaluation of Xylazine Test Strips (BTNX) for Drug Checking Purposes. March 22, 2023. Accessed April 6, 2023. <https://www.cfsre.org/nps-discovery/drug-checking/evaluation-of-xylazine-test-strips-btnx-for-drug-checking-purposes>



HARM REDUCTION AND XYLAZINE USE

Wounds: not bacterial but necrotic

- Can get secondarily infected

Can occur at non injection sites

- Can occur in non injection drug users

Basic Wound care

- No
 - Hydrogen peroxide
 - Alcohol use
- Yes
 - Sterile water
 - Enzymatic agents
 - Wound markers
 - Cover wound

Trigger Signs

- Odor
- Black skin or chunks of skin falling off
- Red streaks radiating from wound or enlarging area

WHAT DO WE DO ABOUT XYLAZINE OVERDOSE?

- » Will not respond to naloxone
 - » Likely overdose also involves opioids, so give naloxone until person breathes
- » Provide oxygen
- » Call 911; transport to hospital
 - » No approved intervention in humans
- » Test strips
 - » Point of care tests just released
 - » <https://www.lochnessmedical.com/hr-product?id=2025>
 - » Gas chromatography available, use needs to increase



XYLAZINE WITHDRAWAL

- » Initial COWS scores were higher in xylazine positive vs negative groups
- » Characterized by anxiety, dysphoria, restlessness
- » Increases COWS score over opioid withdrawal alone
- » Does not respond to opioid agonists
- » May cause difficulty in retaining patients
 - » 35 (xylazine+) vs 17% (xylazine -) left hospital AMA

You might need to provide additional interventions to engage patients using xylazine, but the bottom line is to treat patients using xylazine and opioids with MOUD. It saves their lives.

Sources: D’Orazio, J 2023; Love, JS 2023; Spadaro, A 2022; Ehram-Dupre 2022

XYLAZINE RESOURCES

- » Most comprehensive information:
<https://oasas.ny.gov/system/files/documents/2023/04/xylazine-guidance.pdf>
- » Xylazine webpage:
<https://www.cdph.ca.gov/Programs/CCDPHP/sapb/Pages/Xylazine.aspx>
 - » Xylazine Fact Sheet:
https://www.cdph.ca.gov/Programs/CCDPHP/sapb/CDPH%20Document%20Library/Xylazinefactsheet_.pdf
 - » Issue Brief: Xylazine, Health Risks and Harm Reduction Strategies:
https://www.cdph.ca.gov/Programs/CCDPHP/sapb/CDPH%20Document%20Library/Issue-Brief-Xylazine_ADA.pdf
 - » Letter to Local Health Officers from CDPH Director and State Public Health Officer, Dr. Tomás J. Aragón:
https://www.cdph.ca.gov/Programs/CCDPHP/sapb/CDPH%20Document%20Library/20230320_Xylazine_Alert_Letter.pdf

XYLAZINE RESOURCES – ADDICTIONFREECA.ORG

Informational flyers from IL

» [English](#)

» [Chinese](#)

» [Spanish](#)

» Polish and Arabic flyers available upon request

HMA will upload CA-specific flyers as they become available.

The screenshot shows the website for Addiction Free CA. The top navigation bar includes 'About', 'Child Welfare & Juvenile Justice', and 'MAT in Jails and Drug Courts' (highlighted with a red box). The main content area features the title 'MAT in Jails and Drug Courts' and a large green arrow pointing downwards. Below the title, there is a paragraph of text describing the project's funding and goals. On the right side, there is a yellow sidebar titled 'Resource Library' containing a list of resource categories, each with a plus sign to its right. The categories are: Adolescent SUD, CA Response to Opioid Crisis, Child Welfare and Family Reunification: Courts/Law, Models and Best Practices, Child Welfare Resources, Child Welfare Systems: Models and Best Practices, Co-Occurring Disorders in Justice Settings, and Current Issues in OUD. The 'Current Issues in OUD' category is highlighted with a red box.

Fentanyl and xylazine are exacerbating our overdose epidemic and are now being referred to as fentanyl adulterated or associated with xylazine (FAAX)



POLLING QUESTIONS

1. Overall, today's webinar was:
 - A. Very useful
 - B. Somewhat useful
 - C. Not very useful
 - D. Not useful at all

2. The material presented today was:
 - A. At the right level
 - B. Too basic
 - C. Too detailed

CONTACT US

FOR ANY QUESTIONS OR COMMENTS
MATinCountyCJ@healthmanagement.com

UPCOMING EVENTS

- » Legal Basis of Medication Assisted Treatment (MAT)
 - » May 16, 2023 at 12:00 pm PDT
 - » <https://healthmanagement.zoom.us/meeting/register/tJ0ocOuspzMtHdYrb8PG6izX4ZjKqCjICaRY#/registration>
- » CalAIM Justice-Involved Funding Opportunities: PATH 3 Deep Dive
 - » Webinar: May 31, 2023; Q&A/Discussion: June 7, 2023 at 1:00 pm PDT
 - » https://healthmanagement.zoom.us/meeting/register/tJUvc-2rrDwjHtNf_-SYmTY4gEWJucrxkGAd#/registration

RESOURCES/REFERENCES

- » Biden-Harris Administration Designates Fentanyl Combined with Xylazine as an Emerging Threat to the United States: <https://www.whitehouse.gov/ondcp/briefing-room/2023/04/12/biden-harris-administration-designates-fentanyl-combined-with-xylazine-as-an-emerging-threat-to-the-united-states/>
- » Public Safety Alert - DEA Reports Widespread Threat of Fentanyl Mixed with Xylazine: <https://www.dea.gov/alert/dea-reports-widespread-threat-fentanyl-mixed-xylazine#:~:text=United%20States%20Drug%20Enforcement%20Administration,-Search&text=>
- » Snyder H, Chau B, Kalmin MM, et al. High-Dose Buprenorphine Initiation in the Emergency Department Among Patients Using Fentanyl and Other Opioids. JAMA Netw Open. 2023;6(3):e231572. doi:10.1001/jamanetworkopen.2023.1572
- » D'Onofrio G, Hawk KF, Perrone J, et al. Incidence of Precipitated Withdrawal During a Multisite Emergency Department–Initiated Buprenorphine Clinical Trial in the Era of Fentanyl. JAMA Netw Open. 2023;6(3):e236108. doi:10.1001/jamanetworkopen.2023.6108

RESOURCES/REFERENCES (CONT.)

- » Friedman J, Godvin M, Molina C, Romero R, Borquez A, Avra T, Goodman-Meza D, Strathdee S, Bourgois P, Shover CL. Fentanyl, Heroin, and Methamphetamine-Based Counterfeit Pills Sold at Tourist-Oriented Pharmacies in Mexico: An Ethnographic and Drug Checking Study. medRxiv [Preprint]. 2023 Jan 28:2023.01.27.23285123. doi: 10.1101/2023.01.27.23285123. PMID: 36747647; PMCID: PMC9901047.
- » <https://www.fda.gov/drugs/drug-safety-and-availability/fda-alerts-health-care-professionals-risks-patients-exposed-xylazine-illicit-drugs>
- » California Department of Public Health Fentanyl webpages
<https://www.cdph.ca.gov/Programs/CCDPHP/sapb/Pages/Fentanyl.aspx>
- » <https://www.cdph.ca.gov/Programs/OPA/Pages/Communications-Toolkits/Fentanyl-Overdose-Prevention.aspx>
- » <https://www.cdph.ca.gov/Programs/CCDPHP/sapb/CDPH%20Document%20Library/Fentanyl-test-strips-FAQs-FINAL-10.17.pdf>

RESOURCES/REFERENCES (CONT.)

- » Friedman J, Montero F, Bourgois P, Wahbi R, Dye D, Goodman-Meza D, Shover C. Xylazine spreads across the US: A growing component of the increasingly synthetic and polysubstance overdose crisis. Drug Alcohol Depend. 2022 Apr 1;233:109380. doi: 10.1016/j.drugalcdep.2022.109380. Epub 2022 Feb 26. PMID: 35247724; PMCID: PMC9128597. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9128597/>
- » Xylazine webpage: <https://www.cdph.ca.gov/Programs/CCDPHP/sapb/Pages/Xylazine.aspx>
- » Xylazine Fact Sheet: https://www.cdph.ca.gov/Programs/CCDPHP/sapb/CDPH%20Document%20Library/Xylazinefactsheet_.pdf
- » Issue Brief: Xylazine, Health Risks and Harm Reduction Strategies: https://www.cdph.ca.gov/Programs/CCDPHP/sapb/CDPH%20Document%20Library/Issue-Brief-Xylazine_ADA.pdf

RESOURCES/REFERENCES (CONT.)

- » Letter to Local Health Officers from CDPH Director and State Public Health Officer, Dr. Tomás J. Aragón:
https://www.cdph.ca.gov/Programs/CCDPHP/sapb/CDPH%20Document%20Library/20230320_Xylazine_Alert_Letter.pdf
- » Xylazine has been confirmed in each of the following counties:
 - » LA County <http://publichealth.lacounty.gov/eprd/lahan/alerts/LAHANXylazine022423.pdf>
 - » Marin County https://www.marinhhs.org/sites/default/files/files/public-health-updates/advisory_-_xylazine_presence_in_illicit_drug_supplymw.pdf
 - » San Francisco <https://www.sfcddcp.org/wp-content/uploads/2023/02/Health-Alert-Xylazine-Identified-in-Overdose-Decedents-SFDPH-FINAL-02.16.2023.pdf>
 - » San Diego <https://www.sandiegouniontribune.com/news/public-safety/story/2023-01-15/fentanyl-animal-tranquilizer-san-diego>
 - » Santa Clara <https://news.sccgov.org/news-release/first-xylazine-death-confirmed-santa-clara-county>

RESOURCES/REFERENCES (CONT.)

- » D’Orazio, J. , et al April 2023. Wounds, withdrawal, and overdose: what to expect from xylazine drug supply adulteration. ASAM 53rd annual conference. National Harbor, MD
- » Spadaro A et al AMERSA 46th Annual Conference Nov 2022. Boston, MA
- » Love JS, et al. Opioid overdoses involving xylazine in emergency department patients: a multicenter study. Clin Toxicol (Phila). 2023 Mar;61(3):173-180. doi: 10.1080/15563650.2022.2159427. PMID: 37014353; PMCID: PMC10074294.
- » Ehrman-Dupre R, et al. Management of Xylazine Withdrawal in a Hospitalized Patient: A Case Report. J Addict Med. 2022 Sep-Oct 01;16(5):595-598. doi: 10.1097/ADM.0000000000000955. Epub 2022 Jan 11. PMID: 35020700.
- » The Center for Forensic Science Research & Education. Evaluation of Xylazine Test Strips (BTNX) for Drug Checking Purposes. March 22, 2023. Accessed April 6, 2023. <https://www.cfsre.org/nps-discovery/drug-checking/evaluation-of-xylazine-test-strips-btnx-for-drug-checking-purposes>
- » Shuda, SA; Lam, HY (2022) Characterization of Xylazine Test Strips for Use in Drug Checking. The Center for Forensic Science Research & Education. Retrieved from https://www.cfsre.org/images/content/reports/drug_checking/CFSRE_Xylazine_Report-Rev-1-18-23.pdf