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Brooke Peder's leg was amputated after an infection from a tranq wound bore into the bone. She hopes to save her arm, although she reluctantly injects tranq in it. Credit... Hilary Swift for The New York Times

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Tranq Dope: Animal Sedative Mixed With Fentanyl Brings Fresh Horror to U.S. Drug Zones

A veterinary tranquilizer called xylazine is infiltrating street drugs, deepening addiction, baffling law enforcement and causing wounds so severe that some result in amputation.

Brooke Peder's leg was amputated after an infection from a tranq wound bore into the bone. She hopes to save her arm, although she reluctantly injects tranq in it. Credit... Hilary Swift for The New York Times

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By [Jan Hoffman](#)

- Jan. 7, 2023

PHILADELPHIA — Over a matter of weeks, Tracey McCann watched in horror as the bruises she was accustomed to getting from injecting fentanyl began hardening into an armor of crusty, blackened tissue. Something must have gotten into the supply.

Switching corner dealers didn't help. People were saying that everyone's dope was being cut with something that was causing gruesome, painful wounds.

"I'd wake up in the morning crying because my arms were dying," Ms. McCann, 39, said.

In her shattered Philadelphia neighborhood, and [increasingly](#) in [drug hot zones](#) around the country, an animal tranquilizer called xylazine — known by street names like "tranq," "tranq dope" and "zombie drug" — is being used to bulk up illicit fentanyl, making its impact even more devastating.

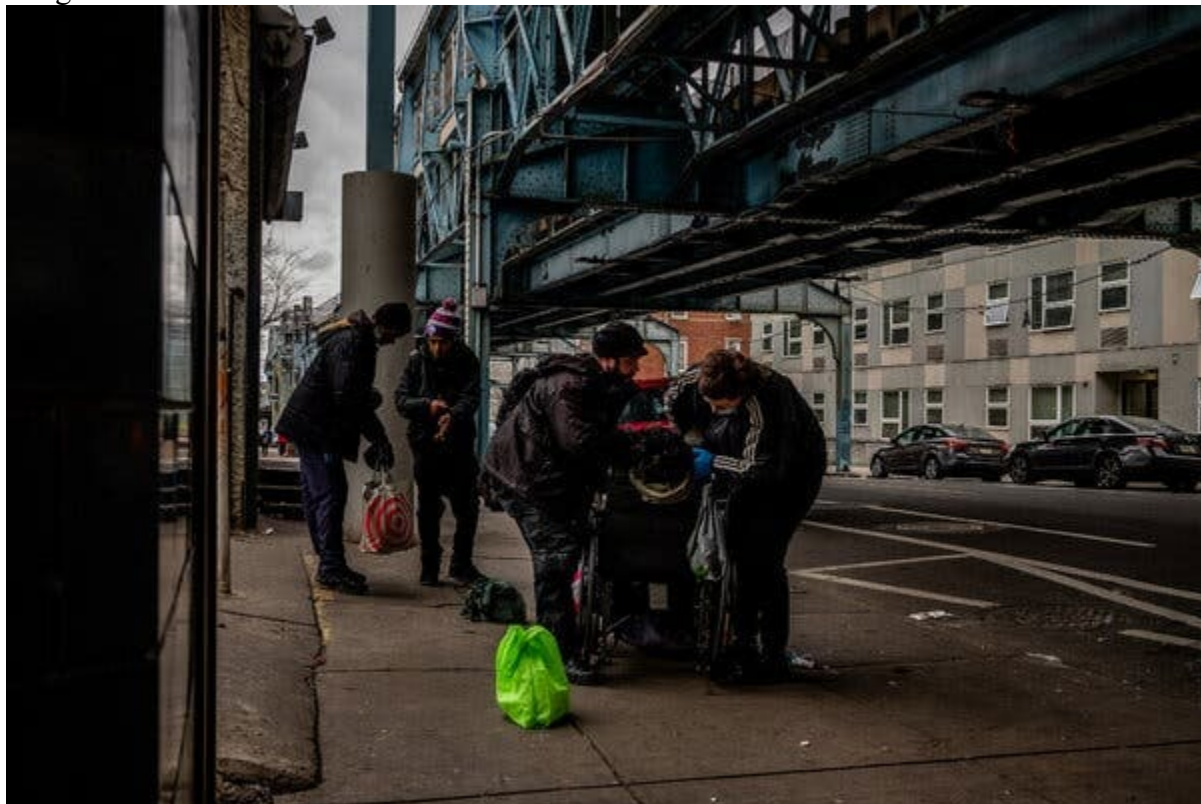
Xylazine causes wounds that erupt with a scaly dead tissue called eschar; untreated, they can lead to amputation. It induces a blackout stupor for hours, rendering users vulnerable to rape and robbery. When people come to, the high from the fentanyl has long since faded and they immediately crave more. Because [xylazine is a sedative](#) and not an opioid, it resists standard opioid overdose reversal treatments.

More than 90 percent of Philadelphia’s lab-tested dope samples were positive for xylazine, according to [the most recent data](#).

“It’s too late for Philly,” said Shawn Westfahl, an outreach worker with [Prevention Point Philadelphia](#), a 30-year-old health services center in Kensington, the neighborhood at the epicenter of the city’s drug trade. “Philly’s supply is saturated. If other places around the country have a choice to avoid it, they need to hear our story.”

[A study published in June](#) detected xylazine in the drug supply in 36 states and the District of Columbia. In New York City, xylazine has been found in 25 percent of drug samples, though health officials say the actual saturation is certainly greater. In November, the Food and Drug Administration issued a [nationwide four-page xylazine alert](#) to clinicians.

Image



Shawn Westfahl, center left, attended to a man who Mr. Westfahl believed had just injected tranq dope, in the Kensington section of Philadelphia. Credit...Hilary Swift for The New York Times

Image



Tracey McCann is in recovery from tranq dope at a treatment center near St. Louis. “I’d wake up in the morning crying because my arms were dying,” she said. Credit...Neeta Satam for The New York Times

In December, the Office of National Drug Control Policy said it was [tracking the spread closely](#), and the journal [Pediatrics published an analysis of three cases](#) of xylazine ingestion by toddlers.

But [xylazine’s true prevalence](#) is unknown. Hospitals don’t test for it. Some state medical examiners don’t routinely do so, either.

The drug exists in a legal gray zone. Approved 50 years ago by the F.D.A. as a veterinarian-prescribed analgesic, it is not listed as a controlled substance for animals or humans and so is not subject to strict monitoring. Thus, it has not been on the radar of [federal law enforcement](#) for diversion or abuse.

As with many trapped by tranq, Ms. McCann’s hellish descent began with prescription opioids. In 2009, when she was 27, she developed a dependence on painkillers prescribed after a severe car crash. A boyfriend she met at one of her six stays in rehab introduced her to heroin. Cheaper and more potent fentanyl elbowed heroin off the streets. Then, as the Covid-19 pandemic descended in 2020, tranq stormed Philadelphia.

Fentanyl Overdoses: What to Know

Card 1 of 6

Devastating losses. Drug [overdose deaths](#), largely caused by the synthetic opioid drug fentanyl, [reached record highs in the United States in 2021](#). Here's what you should know to keep your loved ones safe:

Understand fentanyl's effects. Fentanyl is a potent and fast-acting drug, two qualities that also make it highly addictive. A small quantity goes a long way, so it's easy to suffer an overdose. With fentanyl, there is only a short window of time to intervene and save a person's life during an overdose.

Stick to licensed pharmacies. Prescription [drugs sold online or by unlicensed dealers](#) marketed as OxyContin, Vicodin and Xanax are often laced with fentanyl. Only take pills that were prescribed by your doctor and came from a licensed pharmacy.

Talk to your loved ones. The best way to prevent fentanyl use is to [educate your loved ones](#), including teens, about it. Explain what fentanyl is and that it can be found in pills bought online or from friends. Aim to establish an ongoing dialogue in short spurts rather than one long, formal conversation.

Learn how to spot an overdose. When someone overdoses from fentanyl, breathing slows and their skin often turns a bluish hue. If you think someone is overdosing, call 911 right away.

Buy naloxone. If you're concerned that a loved one could be exposed to fentanyl, you may want to buy naloxone. The medicine can rapidly reverse an opioid overdose and is often available at pharmacies without a prescription. [Narcan](#), the nasal spray version of naloxone, has received F.D.A. approval to be [sold over the counter](#) and should be widely available by late summer.

Last July, she was evicted from her room in Kensington. "I was sleeping on the sidewalks crying every night, knowing that I was better than that," Ms. McCann said. Someone next to her got shot. A man tried to rape her, but she defended herself with a box cutter. On the hot summer streets, she saw people whose tranq wounds were covered with fleas and maggots.

Even so, she said, "I could not pull myself away from that drug."

Image



Ms. McCann shows a photo of herself last summer shortly before she fled Kensington, when she weighed only about 90 pounds. Credit...Neeta Satam for The New York Times

‘Self-destruction at its finest’

On a recent chilly afternoon, hundreds of people filled the streets surrounding Prevention Point, carrying used syringes to exchange for sterile ones. Some then made their way to the center’s wound care clinic, which has seen a 313 percent rise in visits over the past three years, largely because of tranq.

[Brooke Peder](#), a 38-year-old tattoo artist nicknamed the Hood Grandma, rolled her wheelchair to the exchange check-in and handed over a gallon container filled with syringes. Her mother, sister and wife died of overdoses. Just over a year ago, her right leg had to be amputated because of an infection from a tranq wound that bore into the bone.

Ms. Peder, who has been using drugs in Kensington for 13 years, said she was eager to warn about tranq, especially to newbies arriving in the neighborhood, lured by its decades-old reputation as a drug marketplace. They come from all over the country. Many arrive with money and pay locals to seek out drugs, until they turn into locals themselves, she said.

She unrolled a bandage from elbow to palm. Beneath patches of blackened tissue, exposed white tendons and pus, the sheared flesh was hot and red. To stave off xylazine's excruciating withdrawal, she said, she injects tranq dope several times a day. Fearful that injecting in a fresh site could create a new wound, she reluctantly shoots into her festering forearm.

Image



At an office at Prevention Point, Ms. Peder changed the dressing on her arm. Credit... Hilary Swift for The New York Times

“The tranq dope literally eats your flesh,” she said. “It’s self-destruction at its finest.”

Tranq dope is an ever-fluctuating blend of xylazine, a sedative, and usually an opioid, with each type of drug binding to different brain receptors. While there is ample research on opioids, there is almost none on xylazine in humans. Though [it has been detected](#) in [fatal overdoses](#) where opioids were present, its direct correlation with fatality is undetermined.

Xylazine was developed in 1962 as an anesthetic for veterinary procedures. Trials in humans were shut down because the drug led to respiratory depression and low blood pressure. Its use as an addictive substitute for heroin most likely started in the 2000s: In 2011, [a study observed](#) that people in farming areas of Puerto Rico were injecting “anestesia de caballo” (horse anesthesia) and developing severe skin ulcers.

In Kensington, which has a [substantial Puerto Rican population](#), the drug was found in 2006. But it wasn't until about 2018 that tranq use began [escalating there](#) and then throughout [the Northeast](#). Some [epidemiologists](#) theorize that during the pandemic, bottles of domestic xylazine, purchased online with a veterinary prescription or diverted from veterinary supply chains, became popular as a cheap, easy opioid filler.

Unsuspecting Kensington customers saw an advantage to the new mix: A bag of heroin ran about \$10, tranq dope \$5.

Image



An encampment in the Kensington neighborhood. Credit... Hilary Swift for The New York Times

Image



Used needles, Narcan sprays and abandoned belongings on Kensington Avenue. Credit... Hilary Swift for The New York Times

But costs accrued. Kim Barauskas, 53, wondered why, after shooting up, she was falling over, waking up later and then immediately feeling that “we’re all sick again and need to get another shot.”

“Most people tell me, ‘I wish I could find dope that didn’t have xylazine,’” said [Dr. Joseph D’Orazio](#), an expert in toxicology and addiction medicine at Temple University Hospital in Philadelphia, which treats dozens of xylazine users daily. “But what gets put out there on the street is what people have to use.”

Reversing an overdose where xylazine was involved is tricky. A dose of the overdose-halting medicine naloxone, which blocks or reverses opioids’ effect on brain receptors, will address the fentanyl but still won’t rouse a victim sedated with xylazine. Desperate rescuers may try a second or third dose. But [too much naloxone](#) can put someone into withdrawal, vomiting and writhing.

Responders are advised to check whether the person is breathing, protect the head and airways, apply one dose of naloxone and call for backup.

Even when opioid withdrawal is contained, the harsh xylazine withdrawal continues. People keep using tranq dope for fear of “getting sick”: migraines, double vision, nausea, numbness in fingers and toes, sweats and body-rattling anxiety. There is no medical

protocol yet for managing it; Dr. D'Orazio [typically uses anti-anxiety drugs](#) to treat the patient's symptoms.

Image



Kim Barauskas said that right after she accidentally injected tranq into an artery, she felt like her hands had been dipped in acid. Her fingertips may need to be amputated. Credit...Hilary Swift for The New York Times

Doctors are perplexed by how xylazine causes wounds so extreme that they initially resemble chemical burns. They may not even appear at injection sites, but often on shins and forearms.

Ms. McCann's tranq-scorched forearms reeked, oozed, itched and seared. Washing them regularly was nearly impossible, with public restrooms her only source of clean water.

She finally made her way to Prevention Point's wound care clinic, where [nurses debrided sores](#), dispensed antibiotic ointment and supplies and taught her how to change bandages. Using toenail clippers and alcohol wipes, she meticulously trimmed the eschar.

The Opioid Crisis

- **Fentanyl:** The drug has become a leading cause of death in the United States, an issue on the [presidential campaign trail](#) and the subject of major diplomatic efforts by the Biden administration. [Here is what to know.](#)
- **Narcan:** The first opioid overdose reversal medication approved for over-the-counter purchase will soon arrive in many stores. [Here's what to know about buying this lifesaving drug.](#)
- **Consumption Sites:** A controversial strategy to blunt the opioid epidemic that has been sweeping cities like Philadelphia: [supervised drug consumption sites](#), in which people are allowed to take illicit drugs under professional supervision.
- **In New York City:** He quit a job as a paramedic to help people at a safe injection site in East Harlem. [Now, his job is under legal threat.](#)

One day in August, she caught a glimpse of herself: Normally weighing 150 pounds, she was down to 90. "I thought, I either need to do a lethal shot of xylazine or get the hell out of Kensington," she said.

The only person who would let her use a cellphone was a guy whose arm and leg had been amputated because of his tranq wounds. He was still injecting into his leg stump.

She made her decision.

Now in her fifth month of sobriety at an intensive outpatient program near St. Louis and at a healthy weight, Ms. McCann is both stunned by and proud of her progress. From wrist to elbow, her meandering pink and purple scars are a road map of being lost and found. "People out here might think my arms look really ugly, but they aren't familiar with tranq wounds yet," she said. "To me, my arms look really beautiful now."

Image



Ms. McCann is now in her fifth month of sobriety and back to a healthy weight. Credit...Neeta Satam for The New York Times

A revival

One afternoon, Mr. Westfahl, who coordinates Prevention Point's overdose prevention team, walked along Kensington Avenue, handing out free nasal spray doses of Narcan, the opioid overdose reversal medication. He and another outreach worker visited encampments of people on the street, some shooting up tranq dope openly, as local residents and shop workers scurried by in the accumulating darkness. People slumped against parking meters and in doorways, heads lolling, necks twisting. Three huddled around a small bonfire, burning a blanket for fuel.

Within 45 minutes, the two men had given away more than 100 doses of Narcan. They hung blue opioid reversal kits on street poles for anyone to grab, filled with disposable gloves, Narcan and plastic mouth guards for mouth-to-mouth resuscitation.

Already overwhelmed by fentanyl, social welfare organizations, public health officials and clinics are in the early throes of figuring out how to withstand tranq. At least one state, Florida, has listed xylazine as a controlled substance. A comparable federal scheduling would prompt much stricter monitoring of prescriptions and suppliers of the drug, including in online transactions.

An official with the Drug Enforcement Administration who declined to be named said that the agency had been in contact with the F.D.A. and looks forward “to the completion of its scientific and medical evaluation and scheduling recommendation.”

Image



Mr. Westfahl, right, and Carlos Del Valle walked around the Kensington neighborhood handing out Narcan and directing people to wound care and needle exchange clinics. Credit...Hilary Swift for The New York Times

Image



Sara Wallace-Keeshen, right, and Kristi Petrillo-Straub, Prevention Point nurses, put together wound care kits for patients. They dress casually rather than in hospital scrubs, hoping to appear nonjudgmental and approachable. Credit... Hilary Swift for The New York Times

Some public health experts, noting that tighter controls on diverted prescription painkillers contributed to the rise of illicit fentanyl, questioned whether scheduling xylazine would alleviate its attendant problems, especially if more support programs are not forthcoming.

For now, the practical goal is to [minimize xylazine's damage](#) by educating those who could be exposed, urging them not to use alone. Many leaders in the so-called harm reduction movement are pressing for [supervised injection sites](#), where people can use in safer conditions and even have their drugs [tested](#). Only two exist in the United States, both in [New York City](#), where in 10 minutes [people can learn](#) whether their drugs include xylazine.

The Philadelphia health department has also been [reaching out to clinicians](#) who work with tranquil patients, and Dr. D'Orazio has been lecturing widely about how to manage cases.

But a longstanding obstacle to progress is shame. People who use drugs often feel too mortified by their wounds to come in from the shadows to get help at emergency rooms.

That shame can be perpetuated by health care workers, who may dismiss these patients' agonizing withdrawal as mere drug-seeking behavior. "Stigma is so deeply entrenched within [hospital culture](#)," said Sara Wallace-Keeshen, a Prevention Point nurse who wears casual clothes rather than medical scrubs, hoping to appear nonjudgmental and welcoming.



Narcan kits and missing person signs are common sights in Kensington. Credit...Hilary Swift for The New York Times

Mr. Westfahl continued his journey down Kensington Avenue. Suddenly, at the intersection of Kensington and Allegheny, shouts went up from a gathering crowd: “Get the Narcan!”

A man was splayed out on the sidewalk, unconscious.

Announcing that he had first-aid training, Mr. Westfahl asked people to hold off on Narcan. He pulled on disposable gloves, checked the man’s pulse and opened his mouth to make sure it was free of food, syringe caps — anything he could choke on. Mr. Westfahl tilted the head back to check breathing and keep the airway open. Then, making a fist, he rolled his knuckles briskly up and down the man’s chest in a sternum rub; the surprising pain can jolt someone awake. The man began to come to, stupefied.

Mr. Westfahl and some onlookers hoisted him gently. Still heavily sedated, he lurched in the freezing wind, pants drooping. On either side, two women slipped their hands inside his open, flapping jacket.

They were fumbling for his zipper, which they secured to keep him warm. Then, arms around him, holding him up, the three headed back down Kensington Avenue.

Hilary Swift contributed reporting.

[Jan Hoffman](#) writes about behavioral health and health law. Her wide-ranging subjects include opioids, tribes, reproductive rights, adolescent mental health and vaccine hesitancy. [More about Jan Hoffman](#)

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