Xylazine has infiltrated the UK's illicit drug market

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Xylazine, a powerful animal tranquilizer linked to horrific side effects, is now widespread in the UK illicit drug market.
In most cases, xylazine is mixed with strong opioids, such as heroin or fentanyl, which is a common combination in the United States. However, xylazine was also detected in the absence of strong opioids alongside stimulant drugs such as cocaine, and found in items sold as counterfeit codeine and diazepam (Valium) tablets and even THC vapes.

Researchers warn the wider population of people who use drugs beyond heroin users will be exposed to xylazine's harms.

The findings, published in *Addiction*, come after the team from the National Programme on Substance Abuse Deaths at King's College London reported on the death of a 43-year-old man from Solihull, West Midlands, in May 2022. This is the first death outside North America and the first in the UK to be linked to xylazine use.

Xylazine is a non-opioid sedative, painkiller and muscle relaxant used in veterinary medicine as a tranquilizer for animals. The drug—known as "tranq" or "tranq dope" when cut with heroin and fentanyl—is causing widespread problems in United States, as it can dangerously lower breathing and heart rate. If injected directly into the user's bloodstream this reduces the need to re-dose, but this can cause large open skin ulcers to form.

Researchers contacted all toxicology laboratories in the UK to collate evidence of xylazine detections in biological samples. They found the presence of the drug in sixteen people, 11 of whom were fatal. Eleven samples dated from the summer of 2023.

Senior author Dr. Caroline Copeland, from King's College London said, "We now know that xylazine has penetrated the UK's illicit drug market. This is cause for alarm as a much wider population of people who use drugs beyond heroin users will be exposed to its harms."
"We also know that most people who buy heroin will not intend to buy xylazine and this combination increases the risk of overdose. Xylazine was designated an 'emerging threat' to the United States and this public health threat is a growing concern for the UK.

"There are three simple measures the UK can introduce to prevent the epidemic of xylazine use that has emerged in the U.S.. Cheap xylazine test strips should be made available, health care providers need to be aware of the signs that chronic skin ulcers are due to xylazine use, and pathologists and coroners should specifically request toxicology testing for xylazine in relevant cases to understand the true prevalence of the drug."

Co-author Dr. Adam Holland, Co-Chair, Faculty of Public Health Drugs Special Interest Group and Clinical Research Training Fellow, University of Bristol said, "The emergence of xylazine in the UK drug market, as well as the proliferation of potent synthetic substances including nitazenes and benzodiazepine analogs is extremely concerning. As levels of adulteration increase and drug-related deaths mount it becomes even more clear that our punitive drug laws are not reducing harm.

"We need to expand the range of harm reduction interventions available for people who use drugs, including drug checking and overdose prevention centers, to give them the opportunities they need to stay safe."

Professor Sir John Strang, Head of Addictions at The Institute of Psychiatry, Psychology & Neuroscience at King's College London and was not involved in the study, said, "We need to be constantly alert to changes in the nature of the illicit drug market, especially as these changes sometimes bring new health complications or challenges. Copeland and her colleagues bring important new information about the
appearance of a new drug, xylazine, as a co-drug added to illicit heroin and also apparently as a novel drug on its own.

"This has required integration of data from different sources (from case reports, from national data-sets and from forensic toxicology) and collaboration across different disciplines and different universities alongside data collection organizations or law enforcement.

"Copeland and colleagues also identify possible changes in public health planning and law enforcement—a good illustration of how science can inform public policy and practice and enable valuable impact."

**More information:** *Addiction* (2024).

Provided by King's College London