



LOCAL DRUG SAMPLE TESTING UPDATE



Legend:

(O) Opioids	(B) Benzodiazepines
(S) Stimulants	(C) Cannabinoids
(A) Other	(H) Hallucinogen/Dissociative
Active Cut	

testRI is a two-year study to find out what is in the drug supply in Rhode Island and how changes to the supply are impacting people who use drugs in our community. We are testing used equipment, like pipes and syringes, that are collected from the community or donated by individuals or local organizations. Samples are tested using advanced confirmatory toxicology testing (LC-QTOF-MS).

Data below are from two samples collected in February from Providence.

*Data here only represent a sample of the local drug supply in Rhode Island. Because of that, the samples we have collected and tested may not represent the broader drug supply in the state. Samples are also not being tested in relation to overdose so outcomes from use, like overdose, are unknown.

Sample date & origin	Sold as (name or appearance):	What we found:
February 2023 Providence	 Fentanyl (white powder)	* indicated substances that make up most of a sample Fentanyl* (O) Acetylfentanyl (O) Butyrylfentanyl (O) Acrylfentanyl (O)
February 2023 Providence	 Fentanyl (white powder)	Fentanyl* (O) Xylazine (A) Lidocaine (A) Acetylfentanyl (O) Methamphetamine (S) Cocaine (S) Quinine (A) Butyrylfentanyl (O) Acrylfentanyl (O) Protonitazene (O) N-ethylamphetamine (S) Noscapine (A)

Why does this matter?

In addition to fentanyl, fentanyl analogs, and xylazine, one February 2023 sample (sold as Fentanyl) contained protonitazene. Protonitazene is a highly potent synthetic opioid that is a nitazene analog. This is the second time a nitazene analog has been detected via testing in testRI.

Nitazenes can range from less potent than fentanyl to significantly more potent. There are no approved medical uses of nitazenes in the US. Nitazenes cause opioid effects and risk of overdose from nitazene exposure is high. Naloxone (Narcan) is effective in treating nitazene-related opioid overdose.

Nitazenes have a different structure than other opioid classes and are not detected using standard drug testing.

The drug supply is volatile and continuously changing. The mixing of drugs with or without the knowledge of people who are using drugs creates higher risk for overdose.

What we found:

Cocaine is a stimulant that can cause elevated blood pressure and fast heart rate. In overdose it can cause heart problems, seizure, stroke, and muscle and/or kidney injury.

Fentanyl is a highly potent opioid with high risk for overdose. In overdose it can cause problems with breathing and unresponsiveness.

Fentanyl analogs are drugs that have a similar chemical structure to fentanyl. Potency estimates of illicitly manufactured fentanyl analogs are most often based on limited data as most have not been approved for use or studied in humans. Because of the toxicity of these drugs, lack of familiarity, inconsistent dose, and mixing into drugs which often already include fentanyl, overdose risk is high. Fentanyl analogs in overdose can cause problems breathing and unresponsiveness. Naloxone will work to reverse overdose from fentanyl and fentanyl analogs. Fentanyl analogs found in these samples:

Para-fluorofentanyl (or 4-fluorofentanyl)

Acetylfentanyl

Butyrfentanyl

Lidocaine is a local anesthetic/numbing agent (e.g., used in dentist offices and for topical pain relief). Lidocaine is a common cut in drugs. At standard doses it is safe, but in very high doses can cause heart problems and/or seizures.

Methamphetamine is a stimulant. Risks include heart problems (e.g., abnormal heart rhythm or rate, heart attack, heart failure), high blood pressure, hallucinations, psychosis, and kidney and/or muscle injury.

N-ethylamphetamine is a designer drug with similar structure to amphetamine and has amphetamine-like effects and risk.

Nitazenes (or nitazene analogs) are a novel class of opioids. Potency of nitazenes vary from less than fentanyl to significantly more potent. There are no approved medical uses of nitazenes in the US. Nitazenes cause opioid effects and risk of overdose from nitazene exposure is high. Naloxone (Narcan) is effective in treating nitazene-related opioid overdose.

Nitazenes have a different structure than other opioid classes and are not detected using standard drug testing. Nitazenes are not detected using fentanyl test strips or urine drug screen immunoassays.

Protonitazene is a potent synthetic opioid that is a nitazene analog. It is estimated that potency of protonitazene may be slightly greater than fentanyl based on studies in animals and cells. It has never been approved for medicinal use. Protonitazene causes opioid effects with use. Risk of overdose is high. Naloxone (Narcan) is effective in treating nitazene-related opioid overdose.

Noscapine is a compound in the poppy plant that has been used as a cough medicine. It is frequently found as an impurity in heroin. Adverse effects can include nausea, dizziness, headache, tremor, and rash.

Quinine is a common cutting agent in heroin/fentanyl. It is a drug used for the treatment of malaria. At amounts typically found in drug samples, the risks are low. At very high doses, risks include kidney damage, ringing in the ears, nausea, vomiting, diarrhea, platelet problems and hypotension (if injected), and heart problems.

Xylazine is a veterinary sedative. Xylazine is a long-acting and sedating medication, but it is not an opioid. Especially if combined with other sedating medications it can cause unresponsiveness, low blood pressure, a slowed heart rate, and decreased breathing. Xylazine use has been associated with skin ulcers and infection. Chronic use can also lead to dependence and a withdrawal syndrome that can cause irritability, anxiety, and dysphoria.

How to reduce risk

Because the drug supply is always changing, it can be hard to know what you are buying. Testing your drugs first with fentanyl test strips can be a good first step.

Having naloxone (Narcan) with you is always important so you can respond to an overdose. It is also important to try not to use alone so someone can help you if you experience an overdose.

Start slow and go slow. Using a little bit of your drug at a time can be helpful to test the strength and keep track of your doses.

Try to avoid mixing depressants or downers, like benzos, opioids, and alcohol when you use. Mixing these can increase your risk of an overdose.

