





LOCAL DRUG SAMPLE TESTING UPDATE

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

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 January 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:
January 2023 Providence	 Heroin/Dope (brown powder)	<p>* indicated substances that make up most of a sample</p> <ul style="list-style-type: none"> Fentanyl* (O) Para-fluorofentanyl* (O) Xylazine* (A) Cocaine* (S) Tramadol* (O) Procaine (A) Lidocaine (A) Levamisole (A) Acetaminophen (A) Caffeine (A) Methamphetamine (S) Acetylfentanyl (O) Isotonitazene (O) Quinidine (A) Heroin (O) Phenacetin (A) Beta-hydroxyfentanyl (O) Para-fluoroacetylfentanyl (O) O-desmethyltramadol (O)
January 2023 Providence	 Adderall 30 (baggie with orange powder pill residue)	<ul style="list-style-type: none"> Methamphetamine* (S) Ketamine (A) Cocaine (S)

Why does this matter?

In addition to fentanyl, fentanyl analogs, and xylazine the January 2023 sample (sold as Heroin/Dope) contained isotonitazene, a highly potent synthetic opioid that is a nitazene analog (a novel class of opioids). This is the first time a nitazene analog has been detected via testing in testRI.

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.

Pressed pills, or pills that are not from your own prescription and pharmacy, may contain unknown substances that could increase risk of harm. The "Adderall" pill residue tested contained mostly methamphetamine and small amounts of ketamine and cocaine.

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

Beta-hydroxyfentanyl

Para-fluoroacetylfentanyl

Heroin is an opioid which in overdose can cause unresponsiveness, slowed or stopped breathing. Heroin is less potent than fentanyl.

Ketamine is an anesthetic that is similar to PCP and often used for its hallucinogenic effects. Ketamine can cause hallucinations, confusion, abnormal behavior, nausea or vomiting, and hypertension. Depending on the dose, it can also cause breathing changes, sedation, abnormal heart rate, seizures or abnormal heart rhythm. Chronic use has been associated with bladder and urinary tract problems.

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.

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.

Isotonitazene is a potent synthetic opioid that is a nitazene analog. It is estimated that isotonitazene may be five times more potent than fentanyl based on studies in animals and cells. Isotonitazene causes opioid effects with use. Risk of overdose is high. Naloxone (Narcan) is effective in treating nitazene-related opioid overdose. Isotonitazene will not be detected using fentanyl test strips or via standard drug testing.

O-desmethyltramadol is an opioid and the main active metabolite of tramadol, an opioid often prescribed for pain. Recently, both tramadol and o-desmethyltramadol have been found as an active cut in the drug supply. In addition to typical opioid effects, tramadol and o-desmethyltramadol can sometimes cause seizures and/or hypoglycemia.

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.

