

Massachusetts Drug Supply Data Stream (MADDS)

Community Drug Supply Alert

4-Fluorofentanyl & Despropionyl 4-Fluorofentanyl Detected in Heroin/Fentanyl

- From November 2020 to January 2021, multiple samples sold as fentanyl and heroin have been confirmed to contain 4-Fluorofentanyl and Despropionyl 4-Fluorofentanyl, in addition to fentanyl and heroin (n=4). Samples were detected in 5 communities in MA (Lynn, Quincy, Pittsfield, Springfield, Boston). Of 11 samples, 4 (36%) were associated with an overdose and 2 were associated with injection site reactions. All samples were collected in collaboration with local harm reduction programs or donated by police departments and submitted for MADDS testing.
- 4-Fluorofentanyl is an analog that was developed in the 1960s; Despropionyl 4-Fluorofentanyl is an intermediary in fentanyl analog production that can also cause harmful effects. Both analogs were first seen in the US illicit drug supply in 2017. In MA, the substances have been found in powdered samples and in the residue of cookers and cottons used for injection.
- User experience reports from the samples associated with negative health effects noted the following: 'overdosed'; 'nodded out but didn't get high, friend used from the same batch and OD'd by sniffing it'; '6 Narcan used'; and '8 mg Narcan administered to revive'. **Narcan will work on these fentanyl analogs.**
- Multiple different cuts were found in the 11 samples, with a range of reported tastes: some were sweet and cut with lactose or mannitol. Others were bitter ('smells like aspirin', 'children's Tylenol smell') and cut with quinine, tramadol, or calcium carbonate, an ingredient in household products like toothpaste powder. Two of the bitter samples reported irritation at the injection site: 'numbs when injected' and 'red, blotchy at injection site'.

How to Identify the Drug

- 4-Fluorofentanyl and Despropionyl 4-Fluorofentanyl are difficult to identify without analytic testing. They appear as a white crystalline solid and blend into other available powder street drugs.
- If you have suspicions about the makeup of your drugs, contact MADDS about drug checking.

Click [for more information](#) and [resources](#) or scan:



Health Effects

- Similar to fentanyl, health effects can include profound respiratory depression, slowed heart rate, low blood pressure, chest wall rigidity ("wooden chest") and unresponsiveness.
- What is different about 4-Fluorofentanyl is that it has a higher toxicity risk than fentanyl. Small amounts of 4-Fluorofentanyl and Despropionyl 4-Fluorofentanyl may cause harm and overdose. Time from consumption to sedating effects and life-threatening overdose is short - seconds to minutes. Because of the potency and toxicity of this drug, its inconsistent manufacture, and blending into the consumed product which often already includes fentanyl, overdose risk is even higher.

Harm Reduction and Overdose Prevention

- The drug supply is unpredictable. It is safer to use when other people are present or can check on you frequently. People using together should take turns to prevent simultaneous overdose. Administer Narcan and call for help in case of overdose or other adverse reaction. You can get Narcan at [harm reduction programs](#) and [retail pharmacies](#) without a prescription.
- If you are concerned about what is in a drug sample, please contact a local harm reduction community organization to get additional advice on safer use and availability of drug checking with MADDS.

MADDS is a state-funded collaboration between Brandeis University researchers, the Massachusetts Department of Public Health, various town police departments and local harm reduction agencies. Contact us at maddsbrandeis@gmail.com