

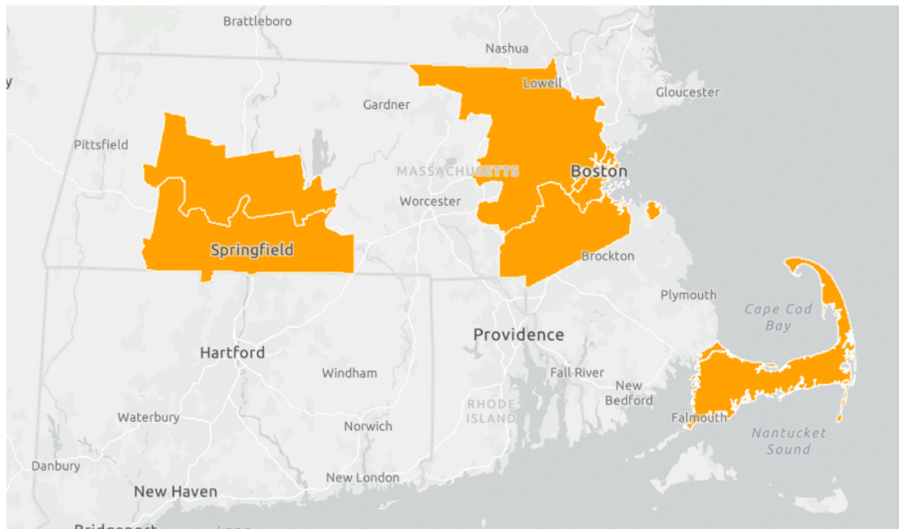


Massachusetts Drug Supply Data Stream (MADDS)

Public Health Bulletin: Emerging Nitazenes Trend May 2024

Recently, there has been an increase of nitazenes (specifically protonitazene, isotonitazene, and metonitazene) found in trace amounts in powder and pill samples submitted for community drug checking in Massachusetts. Nitazenes are a new class of synthetic opioids with varying potency, from less potent than fentanyl to up to 40 times stronger. Nitazenes are commonly found in samples along with fentanyl, fentanyl analogs, and xylazine. Data shows that more than one nitazene is frequently present in a single sample; for example, isotonitazene often appears with metonitazene, and metonitazene with protonitazene. The number of samples tested by MADDS found to contain nitazenes was 6 in 2023 and 13 from January to May 2024. Clinicians and harm reduction services should be aware of this trend to better support individuals who use drugs.

Nitazenes by Lab Testing based on County of Drug Sample Origin



Nitazenes are a group of very strong synthetic drugs. They can be much stronger than fentanyl, which means they can be very dangerous, even in small amounts.

Nitazenes are often found in illegal drugs, making them risky because people might not know they're taking them. Mapping where these drugs are found helps us understand and manage their spread and impact.

Naloxone can save lives during an overdose. It's very effective, but you might need to give extra doses if the overdose involves nitazenes. Always give naloxone, give rescue breaths, and call 911.

Map shown is based on StreetCheck data from January 2023 to May 2024

Clinical data on nitazenes are limited because these drugs are not approved for human use. However, they are expected to cause typical opioid effects and have a high risk of overdose. People using nitazenes may develop a higher tolerance to opioids and experience more severe and quicker withdrawal symptoms. People describe nitazenes as "hard to smoke," with the vapors having a yellowish tint. People using nitazenes also report rashes, ear ringing, passing out, overdoses, and feeling very sick after using drugs that contain nitazenes. Providers should be aware of these risks to better support individuals using these substances.

Naloxone (Narcan) can treat nitazene-related overdoses, but you might need to use more doses and do rescue breathing for longer because nitazenes are very strong. Wait 2-3 minutes between each dose of naloxone, and give rescue breaths in between. Always call 911. High dose naloxone (containing >4mg of naloxone per unit) is not recommended. It is better to give smaller doses of naloxone and repeat if needed. There is no evidence that nitazenes are resistant to naloxone.

* All samples were provided by harm reduction programs or donated by police departments for MADDS testing. 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.

In Massachusetts, we've seen nitazenes ranging from less powerful than fentanyl to up to 25 times stronger than fentanyl. The table below shows how strong different nitazene types are compared to fentanyl. It includes only the nitazenes found in drug samples tested in Massachusetts.

Type of Nitazene:	Strength Compared to Fentanyl:
Metodesnitazene	weaker than fentanyl
Metonitazene	similar strength to fentanyl
Isotonitazene	5 times stronger than fentanyl
Protonitazene	5 times stronger than fentanyl
Etonitazene	10 times stronger than fentanyl
N-Pyrrolidino Protonitazene	25 times stronger than fentanyl

*While this is the range we've seen in Massachusetts, nitazenes can be up to 40 times stronger than fentanyl. Even in trace amounts nitazenes can be strong, effects really depend on concentration and dose.

While nitazenes have opioid affects and are active at the mu opioid receptor, nitazenes will not test positive in urine, blood, or saliva for opioids. Therefore, providers must order nitazene-specific urine, blood or saliva testing to confirm the presence of nitazenes in patients samples.

Recommended Harm Reduction Strategies:

- Start low and go slow when using drugs that may contain nitazenes
- Use with others if possible so someone is there to respond in the event of an overdose
- If using alone consider calling Safe Spot at 1-800-972-0590, someone will stay on the phone with the person using drugs and can call for help in the event of an overdose
- Carry naloxone (Narcan)
- Additional doses of naloxone may be needed, wait 2-3 minutes between doses of naloxone, give rescue breaths in between, and call 911
- High dose naloxone products containing >4mg of naloxone per unit are not recommended
- Get drugs tested prior to use if possible for better informed safety planning

Nitazenes can be hard to identify on tools used for community-based drug checking. Of the nitazene positive samples identified by community-based drug checking, we've found protonitazene was the most likely to be detected. Nitazene test strips exist but are an emerging technology that need further field testing and are not yet considered reliable. Fentanyl test strips and xylazine test strips cannot detect nitazenes in substances.

For information on MADDs partner locations and community-based drug checking services available in Massachusetts please visit [StreetCheck.org/find-drug-checking-services](https://streetcheck.org/find-drug-checking-services) or scan the QR code below.

Scan QR code for information
on where to find drug checking
services in Massachusetts
and surrounding states

