Nitazenes are potent synthetic opioids from a drug class known as benzimidazole-opioids. Over the past two years, the Ohio Bureau of Criminal Investigation’s Laboratory Division has seen an increase in not only the submission of items containing nitazenes but also the number of individual nitazene compounds identified.

Nitazene compounds were originally synthesized in the 1950s for research of their analgesic effects; however, these substances are not approved for medical use anywhere in the world. Three substances identified in this class of drugs - Etonitazene, Clonitazene, and Isotonitazene - were previously classified as Schedule I Drugs. On April 6, 2022, Gov. Mike DeWine signed Executive Order 2022-05D, giving the Ohio Board of Pharmacy the authority to add Butonitazene, Etodesnitazene, Flunitazene, Metodesnitazene, Metonitazene, N-Pyrrolidino Etonitazene and Protonitazene to the list of Schedule I Drugs in this class.

Ohio Specific Case Observations

Color: White, off-white, beige, brown, tan, gray, black, yellow, peach, orange, green
Form: Powder, solid substance, liquid from syringes, residues
Adulterants: Found primarily in combination with fentanyl and fentanyl pharmacophores. Also found in combination with tramadol, cocaine, heroin, methamphetamine, benzodiazepine pharmacophores, and PCP analogs. Non-controlled substances that may be present include caffeine, diphenhydramine, mannitol, xylazine, and quinine.
Locations: Ohio BCI Laboratory submissions containing nitazene compounds were received from the counties depicted above.
Nitazenes: Ohio BCI Laboratory Update

Nitazene compounds, unbeknownst to the user, are often seen in combination with other drugs, including fentanyl and fentanyl pharmacophores. In the first quarter of 2022, the Ohio BCI Lab saw that 82.5% of cases containing nitazene compounds also contained fentanyl.\(^4\) Recent studies show that the potency of nitazene compounds varies, with some being 1.5-40 times more potent than fentanyl.\(^5,6\) Substances that trigger the opioid receptors, like nitazenes, have a high potential for abuse and addiction and can induce dose-dependent respiratory depression.\(^2\) As a result, nitazenes pose an increased risk for accidental overdoses, especially when combined with other substances that suppress the Central Nervous System.\(^1\) Nitazenes have been reported as contributing to deaths across the United States and Canada.\(^1,2,7,8,9\)

![Nitazene Cases Reported Statewide](image)

**Source: Ohio BCI Laboratory Statistics**

Additional doses of naloxone may be required to reverse overdoses involving nitazene.\(^1\)

Officers and first responders should handle all items suspected of containing nitazenes or fentanyl-related substances with caution and proper personal protective equipment.

4. Ohio BCI Laboratory Statistics
6. Marthe M. Vandeputte, personal communication, April 12, 2022