



N-METHYLCLONAZEPAM

This overview from **RTI International** is part of a series of reports developed for the *Opioid Response Network (ORN)* on emerging and trending topics of interest and importance to the addictions field. Briefs are intended to raise awareness and serve as a primer on the topic. **For locally meaningful education and training that is evidence based, on topics of importance to you and at no cost, visit OpioidResponseNetwork.org.**

BRIEF DESCRIPTION

- N-Methylclonazepam (also known as Ro05-4082) is a benzodiazepine derivative with highly sedative and hypnotic effects.
 - N-Methylclonazepam has potency similar to clonazepam (brand name Klonopin), a long-acting tranquilizer in the benzodiazepine class.
 - Though developed in the 1970s, N-Methylclonazepam was never introduced into clinical practice.
- In July 2025, at least 27 people in a Baltimore neighborhood were hospitalized after a mass overdose event.
 - Drug samples from the site contained fentanyl combined with N-Methylclonazepam, along with acetaminophen, caffeine, mannitol (a diuretic), and quinine (an anti-malarial drug).
 - This incident marks the first time that the National Institute of Standards and Technology's (NIST's)
 Rapid Drug Analysis and Research (RaDAR) program detected N-Methylclonazepam in any state.
- Illicit drug manufacturers often include a mix of opioids with other substances, like benzodiazepines, meant to enhance or prolong the effects of street drugs. This mix of substances increases the danger of illicit drug use and complicates overdose response efforts.
 - Combining opioids and benzodiazepines is especially risky because both drugs suppress breathing.
 - Opioid reversal medications like naloxone (brand name Narcan) do not work on benzodiazepines, leaving many polysubstance overdose victims unconscious following initial treatment.

GEOGRAPHIC CONSIDERATIONS

- Maryland is the first state in which NIST's RaDAR program has detected N-Methylclonazepam in an overdose event.
- The illicit drug supply is rapidly evolving throughout the United States, underscoring the importance of community drug checking tools (e.g., fentanyl test strips) and drug surveillance systems (e.g., NIST's RaDAR, UNC Street Drug Analysis Lab).

RELATED ARTICLES/RESOURCES

 New illicit drug containing fentanyl and powerful sedative may be behind mass overdose in Baltimore (CBS News, 7/17/2025)

Funding for this initiative was made possible (in part) by grant no. 1H79Tl085588 from SAMHSA. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.

- Strengthening Public Health Surveillance of Illicit Drug Supplies through the Power of Community Drug Checking Programs (Johns Hopkins Bloomberg School of Public Health)
- Mass overdose in Baltimore may be tied to new illicit drug mixed with fentanyl (The Baltimore Banner, 7/17/2024)