

# New and Emerging Drugs of Abuse

MARCH 2021

## BACKGROUND

New psychoactive substances (NPS) are “substances of abuse, either in pure form or a preparation, that are not controlled by [international drug conventions], but which may pose a public health threat.” The term “new” (or “novel” in some publications) does not denote a brand new, never-before-seen substance, but a substance that is newly available in the drug market. NPS is a catch-all phrase that includes substances like bath salts, synthetic cannabinoids, synthetic opioids, synthetic cathinones, and other drugs of abuse that are not currently scheduled or controlled.

Pursuant to a 2016 report from the United Nations Office on Drugs and Crime (UNODC), more than 640 NPS were reported to the UNODC Early Warning Advisory (EWA) between 2012 and 2016, with more than 100 countries and territories reporting at least one or more NPS during that period. That number has risen to 1,047 as of December 2020, with 126 countries and territories from across the globe reporting one or more NPS. According to the UNODC “Global emergence of new psychoactive substances up to December 2020” map, the United States reported between 300-500 NPS to the EWA during the period 2009-2020.

The danger of NPS is that their effects on the human body are mostly unknown, and they are completely unregulated. These substances often cause side effects ranging from psychosis and seizures to respiratory failure. They are typically sold as “legal highs,” and individuals seeking a “safer” high fall prey to the faulty idea that a substance marketed as a “legal high” is safer than other illicit, controlled drugs.

## NPS IN THE UNITED STATES

LAPPA has been keeping track of the NPS that recently have been appearing on the streets throughout the United States. Below is a description of some of those substances, along with more detailed information on the drugs and how they can affect those who ingest them.

### *Butonitazene and Isotonitazene*

Butonitazene and isotonitazene are synthetic opioids first synthesized in the 1950s and are as potent as fentanyl. Isotonitazene has recently begun to appear in the lab results of individuals who have suffered fatal overdoses. In a case-control study reported in the journal *American Society of Addiction Medicine*, in a six-month period in 2020, there were 40 fatal overdoses involving isotonitazene in Cook County, Illinois and Milwaukee County, Wisconsin. Isotonitazene is often mixed with cocaine or other drugs, making it more lethal. Butonitazene has not yet become the problem that isotonitazene has, but it is readily available online through multiple outlets. As with other opioids, ingesting either butonitazene or isotonitazene can cause difficulty breathing, rapid or declining heart rate, loss of consciousness, vomiting, and hallucinations or delusions, as well as death.

### *Etizolam*



Etizolam has been called a “new alternative” to Xanax. It is related to benzodiazepines and is used as a prescription medication in Japan, Italy, and India to treat anxiety and sleep disorders. It is not, however, approved for any medical use in the United States, where it is treated by law enforcement as a recreational substance. Etizolam ingestion can cause hallucinations, agitation, and a high risk of overdose. Because it is not an opioid, a person experiencing an etizolam overdose will not respond to naloxone.

### *Grey Death and Smurf Dope*

Grey death and Smurf dope are dangerous drugs that are becoming prevalent in a number of states across the country. They contain a combination of methamphetamine or heroin and fentanyl and/or carfentanil. Grey death, so named because it resembles concrete, is described as being so deadly that merely touching it can result in death, with a potency 10,000 times greater than morphine. Smurf dope is a vibrant blue drug that has been linked to a rash of fatal and non-fatal overdoses in Kentucky. Because fentanyl and carfentanil are opioids, a person experiencing an overdose on grey death or Smurf dope can be treated with an opioid overdose reversal drug such as naloxone.



### *Khat*

Khat is a plant-based stimulant drug found in Africa that has been effectively listed as a Schedule I substance in the United States since 1993. However, in recent months, more than 1,000 pounds of khat has been seized in two U.S. cities, signaling that khat use might be on the rise. The effects of khat are very much like cocaine and other amphetamines. High doses of khat can result in delusions, violence, hallucinations, and schizophrenic psychosis.

### *Lean*

Made famous by musicians around the globe, lean, or “sizzurp,” “purple drank,” or “water,” is a mixture of cough syrup with codeine, soda, and hard candy. It is most popular with young adults and teens. Because codeine is an opioid, although not as strong as heroin or fentanyl, it is addictive and can be abused or cause death.

### *Tianeptine/Tianaa*

Tianeptine is an antidepressant drug approved for use to treat anxiety and depression in many European, Asian, and Latin American countries, though not approved for use by the U.S. Food and Drug Administration.

However, it is sold online as a dietary supplement or a so-called “research chemical,” which is a term typically used by online sellers/dealers to describe NPS for sale to make the substances seem legitimate. It has been categorized as a Schedule II controlled substance in a few states. Tianeptine is the main ingredient in Tianaa, a drug marketed as an herbal supplement and sold in gas stations and other convenience stores, but which is potentially very dangerous and addictive.

According to the Drug Enforcement Administration, tianeptine use can result in severe withdrawal symptoms resulting in hospitalization as well as respiratory, neurological, cardiovascular, and gastrointestinal effects. Poison control center calls related to exposure to tianeptine increased an incredible 1,700 percent during the period 2014 to 2017. There is some evidence that a tianeptine-related overdose can be reversed through the administration of an opioid overdose reversal drug such as naloxone.

### *Purple Heroin*

Purple heroin is a mixture of a number of drugs, including heroin, Oxycodone, acetaminophen, fentanyl or carfentanil, and a new drug called bropridine which is a synthetic opioid. The substance is purple in color, and individuals who overdose on it may experience blue nails and lips, confusion or lethargy, snoring or choking sounds, difficulty staying alert, and weakened or absent breathing. As with other opioid-related overdoses, naloxone may help someone experiencing an overdose on purple heroin.



### *Xylazine*

Better known as “tranq,” xylazine is a non-opioid sedative used by veterinarians as a tranquilizer. It is often combined with an opioid to create what is known as “tranq dope.” It first appeared in Puerto Rico in the early 2000s but has since been increasingly seen in overdose deaths throughout the mainland. Overdoses in Connecticut involving xylazine doubled from 70 deaths in 2019, when the drug first appeared, to 140 deaths in 2020, and that number is increasing in other locations. In Philadelphia, for example,

the percentage of overdose deaths where xylazine was present increased to 31 percent, up from a low of just two percent between 2010 to 2015. Because xylazine is not an opioid, treatment with an opioid overdose reversal drug such as naloxone is ineffective.

## CONCLUSION

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Health professionals and law enforcement officials should be aware that the substances outlined above may begin appearing in their areas, if they are not already there. LAPPa will continue to track these substances and other NPS as they appear in the United States and will update this fact sheet periodically.

## RESOURCES

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## ABOUT LEGISLATIVE ANALYSIS AND PUBLIC POLICY ASSOCIATION

Wagstaff, A.J., Douglas Ormrod, and Caroline M. The Legislative Analysis and Public Policy Association (LAPPA) is a 501(c)(3) nonprofit organization whose mission is to conduct legal and legislative research and analysis and draft legislation on effective law and policy in the areas of public safety and health, substance use disorders, and the criminal justice system.

LAPPA produces up-to-the-minute comparative analyses, publications, educational brochures, and other tools ranging from podcasts to model laws and policies that can be used by national, state, and local criminal justice and substance use disorder practitioners who want the latest comprehensive information on law and policy. Examples of topics on which LAPPA has assisted stakeholders include naloxone laws, law enforcement/community engagement, alternatives to incarceration for those with substance use disorders, medication-assisted treatment in correctional settings, and the involuntary commitment and guardianship of individuals with alcohol or substance use disorders.

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