

NOVEL PSYCHOACTIVE SUBSTANCES

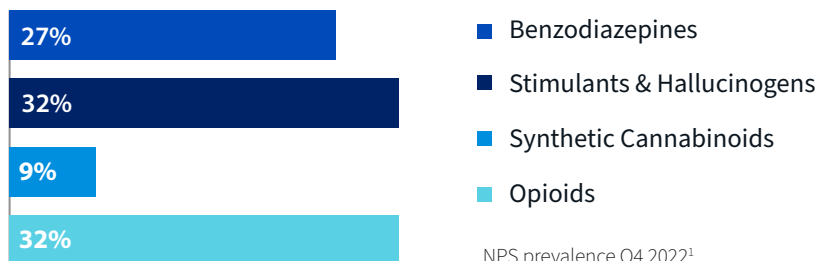
Comprehensive test menu for detecting “designer” drugs

Novel psychoactive substances (NPS) are substances that have effects similar to those of illicit or prescription drugs.¹ NPS are structurally distinct from the original drug, so they are not subject to regulation or detection by standard urine drug tests. The vast majority of “designer” drugs are synthetic analogues or derivatives of psychotropic substances, most of which are manufactured illegally outside of the United States.¹

NPS represent a public health issue of continuing importance. Although they may be advertised as legal, there are serious risks associated with these unregulated substances. Classes of novel psychoactive substances include cannabinoids, opioids, stimulants, and, most recently, benzodiazepines.¹

Designer Benzodiazepines

The use of designer Benzodiazepines has been implicated in an increasing number of adverse health events and the most recent trend report from the Center for Forensic and Science Research and Education (CFSRE) indicates that designer benzodiazepines represented 27% of novel substances seized.¹ Mortality or serious morbidity is associated with misuse and over dosage, especially when combined with other psychoactive substances, particularly ethyl alcohol and opioids. It's important to note that designer benzodiazepines are frequently co-pressed with fentanyl. There is a sophisticated illicit industry manufacturing designer benzodiazepines to appear as legitimate pharmaceuticals.²



56K

Number of deaths in the U.S. in 2020 involving synthetic opioids (not including methadone)³

Designer Opioids

The CDC reports that synthetic opioid-involved death rates increased by over 56% from 2019 to 2020 and accounted for over 82% of all opioid-involved deaths in 2020.³ An increase in fentanyl-related overdose deaths is driving these increases, with the fentanyl source more likely to be illicitly manufactured than prescription medications.³ Fentanyl analogs are not routinely detected by standard toxicology tests and can be more potent than fentanyl.³ Counterfeit pharmaceuticals are widely available and often contain fentanyl.⁴

Novel Psychoactive Substances:

- Are unregulated
- Produce intense psychoactive effects
- Pose significant health risks
- Are not easily detected by most standard drug tests

Testing Options

The detection and measurement of these substances is important in ensuring appropriate support and education to your patients who present with clinical suspicion of designer drug use. We are proud to offer test options that reflect the most current compounds and trends associated with NPS in the U.S.

Test No.	Test Name	Components
703083	Designer Benzodiazepines, Screen With Confirmation, Urine	Delorazepam, Etizolam, Alpha-hydroxyetizolam, Deschloroetizolam, Nifoxipam,* Bromazepam, Diclazepam, Clonazepam, 8-Aminoclonazepam, Flualprazolam, Alpha-hydroxy flualprazolam, Meclonazepam,* Flubromazepam, Phenazepam, 3-Hydroxyphenazepam, Pyrazolam, Flubromazolam, Alpha-hydroxy flubromazolam
703025	Synthetic Opioids, Screen With Reflexed Confirmation, Qualitative, Urine	Fentanyl, Norfentanyl, Acetyl fentanyl, Acetyl norfentanyl, Furanyl fentanyl, p-Fluorobutyrylfentanyl, Acrylfentanyl, Butyryl fentanyl, Carfentanil, 3-Methyl fentanyl, Valeryl fentanyl, Methoxyacetyl fentanyl, Cyclopropyl fentanyl, Tetrahydrofuran fentanyl, Phenylacetyl fentanyl, p-Fluoro cyclopropyl fentanyl, MT-45, Butyryl fentanyl carboxy metabolite, Acetylfentanyl-4-methylphenethyl, Ocfentanil, p-Fluorofentanyl, 4-Methoxy-butyryl fentanyl, AH-7921, U-47700, AH-8533, AH-8529, IC-26, B-Hydroxythiofentanyl, Norcarfentanil, Methoxyacetyl norfentanyl, Mitragynine, 7-OH-mitragynine, Isotonitazene, Metonitazene, Xylazine, 4-Hydroxy xylazine
701106	Synthetic Cannabinoids (K2, Spice), Screen with Reflexed Confirmation, Qualitative, Urine	AB-CHMINACA, AB-FUBINACA, AB-PINACA, F-AB-PINACA, ADBICA, 5F-ADBICA, ADB-PINACA, 5F-ADB-PINACA, AKB-48, 5CI-AKB-48, 5F-AKB-48, AM2201, BB-22, BB-22 hydroxyquinolines, JWH-018, JWH-073, JWH-122, JWH-250, MAB-CHMINACA, MAM-2201, PB-22, PB-22 hydroxyquinolines, 5F-PB-22, 5F-PB-22 hydroxyquinolines, UR-144, XLR-11
790350	Mephedrone, MDPV, and Methylone, Screen and Confirmation, Urine	Mephedrone, Methylenedioxypyrovalerone (MDPV), Methylone
791750	Kratom (Mitragynine), Screen and Confirmation, Urine	Mitragynine, 7-Hydroxymitragynine
790880	Salvinorin, Urine	Salvinorin A, Salvinorin B

*These components only available if urine sample is sent frozen due to stability of the compounds
For more details regarding specimen collection and test details, visit the Test Menu on Labcorp.com.

References

- Center for Forensic Science Research & Education, NPS Discovery. Q4 2022 Trend Reports: NPS Benzodiazepines, NPS Opioids, NPS Stimulants & Hallucinogens, and Synthetic Cannabinoids in the U.S. Accessed February 2023 at https://www.cfsre.org/images/trendreports/2022_Q4_CFSRE_NPS_Discovery_Trend_Reports.pdf.
- Department of Justice, Drug Enforcement Administration. One Pill Can Kill: Fake Pills Fact Sheet. December 2022. Accessed February 2023 at https://www.dea.gov/sites/default/files/2022-12/DEA-OPCK_FactSheet_December_2022.pdf.
- Centers for Disease Control and Prevention (CDC). Synthetic Opioid Overdose Data. CDC website: <https://www.cdc.gov/drugoverdose/deaths/synthetic/index.html>. Accessed February 2023.
- Jurásek B, Čmelo I, Hájková K, Kofroňová E, Kuchař M. Counterfeit benzodiazepines – a phantom menace? *Int J Clin Pract*. 202 Oct;74(10):e13575.

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