

# Novel psychoactive substances (NPS)

Novel psychoactive substances (NPS), sometimes incorrectly called “legal highs,” include a multitude of substances, with many different effects. This infographic classifies NPS into their major groupings and provides information on the desired effects of these compounds, common methods of usage, and their associated risks.

## Stimulant NPS

Cathinone family, such as mephedrone (M-cat)

“Bath salts” “Plant food”

Increase synaptic levels of serotonin, dopamine, and/or noradrenaline to produce a sense of euphoria and wellbeing - a “high”

Commonly:  Swallowed “Bombing”/pills  Nasal “Snorting”

Less commonly:  Injected “Slamming”  Rectal “Plugging”

### Short term risks:

Agitation Psychotic symptoms Hyperthermia  
Anxiety Hypervigilance Cardiovascular toxicity  
Seizures Renal/respiratory failure  
Delirium Serotonin syndrome Stroke

### Long term risks:

Impulsive behaviour Dependency  
Depression Cognitive impairments Psychosis  
Psychological withdrawal effects common after cessation

## Hallucinogenic NPS

### Psychedelics

5-MeO-DALT

NBOMe-series

2C-series

Produce perceptual alterations and quasi-mystical experiences. Some have stimulant properties

### Dissociatives

Methoxetamine (mexxy)

Similar to ketamine and phencyclidine

Produce a euphoric, dissociated state, with a perception of disconnection from physical body

 Swallowed Paper/capsules/liquid

 Swallowed “Bombing”/pills

 Nasal “Snorting”

 Injected

### Short term risks:

Accidents/trauma Aggressive/psychotic states  
Acute cerebellar toxicity Cardiovascular toxicity  
Respiratory failure

### Long term risks:

Addiction Problems with mood/memory  
Cardiovascular problems Abdominal pain  
Kidney/bladder/urinary tract damage (ketamine/methoxetamine)

## Cannabinoid NPS

Synthetic cannabinoid receptor agonists (SCRAs)

“Spice” “Noids” “Black mamba”

“Clockwork Orange” “Pandora's Box”

Typically full agonists of cannabinoid receptors, producing a pleasant state of relaxation and of feeling “stoned”

 Smoked after being sprayed on to herbal mixtures

 Inhaled using e-cigarettes and vapourisers

### Short term risks:

Psychosis Agitation Confusion  
Slurred speech Cognitive impairment Renal failure  
Tachycardia Hypertension Myocardial infarction  
Pulmonary damage Seizures

### Long term risks:

Psychological dependency Addictive potential  
Psychotic illnesses  
Psychological withdrawal effects likely after cessation

## Depressant NPS

### Opioids

AH-7921 MT-45

Novel fentanyl

Similar to established recreational opioids, but with the potential for much longer durations of action

### Benzodiazepines

Clonazepam

Flubromazepam

Sedative, anxiolytic, hypnotic, and anticonvulsant properties—some with long duration of action

 Smoked

 Swallowed Pills / tablets

 Injected

 Nasal

### Short term risks:

Overdose Confusional states — Novel opioids may need more naloxone than traditional opioids  
Seizures after withdrawal

### Long term risks:

Addiction Impaired cognition  
Potential for withdrawal effects after cessation