

MIXING KETAMINE WITH OTHER STIMULANTS

1. Brain & Neurological Effects

Ketamine + MDMA or Cocaine

These combinations create a neurochemical overload that can severely disrupt normal brain function.

- ❑ **Neurotoxicity:** Both MDMA and cocaine flood the brain with neurotransmitters like dopamine, serotonin, and norepinephrine. Ketamine, a dissociative, also alters glutamate signalling (key for learning and memory). This cocktail can overstimulate neurons and cause long-term damage to neural pathways.
- ❑ **Seizure risk:** Stimulants lower the seizure threshold. Ketamine's effects on NMDA receptors can further destabilize neural activity.
- ❑ **Memory and cognition:** Combined use may impair short-term memory, attention span, and executive functioning, especially in younger users.
- ❑ **Derealisation and depersonalisation:** The dissociation from ketamine mixed with the emotional surge from MDMA can increase the risk of acute psychological distress, panic, or long-term dissociation.
- ❑ **Dependency Risk:** Mixing stimulants (which are reinforcing) with ketamine (which has its own dependency potential) may strengthen compulsive use patterns and dependence.

For Young People

- ❑ Brain development continues until around the age of 25. The prefrontal cortex, which controls impulse regulation, judgement, and planning, is especially vulnerable.
- ❑ Interference with neurotransmitter systems during adolescence can impair emotional regulation, learning, and cause lasting mood dysregulation.
- ❑ Increased risk of mental health disorders, including anxiety, depression, and psychosis, especially with early and frequent use.

2. Cardiovascular & Body Effects

Increased strain on the heart and body:

- ❑ **Hypertension and Tachycardia:** Both MDMA and cocaine elevate heart rate and blood pressure. Ketamine can either raise or lower heart rate unpredictably, especially in high doses. Together, they stress the cardiovascular system dangerously.
- ❑ **Hyperthermia and dehydration:** MDMA and cocaine raise core body temperature and can lead to overheating, especially in hot environments like clubs. Ketamine may suppress the body's ability to regulate temperature or detect danger, making it harder to recognise overheating.
- ❑ **Vasoconstriction:** Cocaine constricts blood vessels, increasing risk of heart attack, stroke, or seizures, particularly when mixed with other drugs that impact blood pressure.

- ❑ **Loss of motor coordination:** Ketamine impairs motor function and balance. When combined with stimulants that can make users feel more energetic or invincible, it increases the risk of accidents or serious injuries.

3. Mental Health and Behavioural Risks

- ❑ **Emotional dysregulation:** MDMA’s “empathogenic” effects combined with ketamine’s dissociation can cause extreme mood swings, emotional flooding, or confusion.
- ❑ **Paranoia and psychosis:** Cocaine is associated with acute paranoia. Mixed with ketamine (which can already induce hallucinations or detachment), it may trigger psychosis, especially in those predisposed.
- ❑ **Risk-taking behaviours:** Stimulants increase impulsivity. When mixed with ketamine’s numbing and distorting effects, this can lead to unsafe sex, dangerous driving, or aggression.
- ❑ **Suicidality post-use:** The comedown or “crash” can lead to severe depression, especially in young people, increasing suicide and self harm risk.

Considerations for Young People

Young users face heightened risks due to:

- ❑ *Incomplete brain development, particularly in regions tied to decision-making and emotional regulation.*
- ❑ *Increased susceptibility to mental health disorders.*
- ❑ *Greater likelihood of binge patterns, peer pressure, and poor awareness of risk.*
- ❑ *Long-term impacts on cognitive development and social functioning.*

Summary of Risks by System

System	Ketamine + Stimulants (MDMA/Cocaine)
Brain	Neurotoxicity, cognitive decline, dissociation, addiction
Heart	High blood pressure, risk of stroke, overheating
Mental Health	Psychosis, mood disorders, impulsivity, suicidality
Young People	Long-term neurological impact, worsened emotional regulation, increased vulnerability to harm

Combining ketamine with stimulants is unpredictable and potentially very dangerous—with effects ranging from temporary disorientation to permanent cognitive impairment or fatal outcomes. These risks are significantly amplified in young people and young adults.

KETAMINE AND ALCOHOL

Absolutely. Mixing ketamine and alcohol is also common but high-risk, especially for young people. Both are central nervous system (CNS) depressants, and together they can significantly impair body and brain function. Here's a breakdown of the specific dangers, focusing on impacts on the brain, body, and developmental considerations for young people:

1. Brain & Neurological Effects

Ketamine + Alcohol

- ❑ **Cognitive impairment:** Both substances impair memory, focus, and decision-making. Combined, they increase the risk of blackouts, amnesia, and poor judgement.
- ❑ **Sedation and dissociation:** Alcohol slows brain activity; ketamine causes dissociation. Together, they can lead to extreme confusion, detachment from reality, or dangerous hallucinations.
- ❑ **Risk of overdose:** Both suppress brain activity. The combined effect can slow or stop breathing without warning, especially in inexperienced users.
- ❑ **Motor coordination loss:** Combined use can cause severe clumsiness, falls, and injuries—even at doses where either drug alone might not.

For Young People

- ❑ Alcohol and ketamine both disrupt brain development, particularly in areas responsible for:
 - *Impulse control*
 - *Working memory*
 - *Risk assessment*
- ❑ Repeated use can lead to lasting cognitive difficulties, mood disorders, and reduced academic or social functioning.

2. Body & Physical Health Effects

Compounding physical risks

- ❑ **Respiratory depression:** Both slow breathing and can suppress the gag reflex—raising the risk of choking on vomit, asphyxiation, or respiratory arrest.
- ❑ **Hypothermia or irregular body temperature:** Alcohol widens blood vessels, ketamine interferes with thermoregulation. Users may misjudge temperature or become dangerously cold without realising.
- ❑ **Vomiting while unconscious:** Ketamine users may be immobile or unaware of their surroundings. Combined with alcohol, this raises the risk of aspiration, vomit inhalation, and death during sleep.
- ❑ **Bladder and liver toxicity:** Ketamine is linked to bladder damage with frequent use. Alcohol adds liver strain. Combined, they can increase long-term organ damage.

3. Mental Health and Behavioural Risks

- ❑ **Disinhibition + detachment:** Alcohol lowers inhibitions; ketamine detaches users from reality. This combo increases risk of harm to self or others, including:
 - *Unsafe sex*
 - *Violence or aggression*
 - *Inability to give or obtain consent*
- ❑ **Emotional dysregulation:** Alcohol can heighten emotions; ketamine blunts them. Together, they may produce emotional confusion, sudden aggression, or panic.
- ❑ **Increased suicidal thoughts:** Ketamine's post-use "crash" and alcohol's depressant effects can both intensify suicidal thoughts and self-harm, especially in young people with existing vulnerabilities.

Considerations for Young People

Young people face increased vulnerability when mixing alcohol and ketamine due to:

- ❑ *Greater impulsivity and social pressure in party settings.*
- ❑ *Reduced capacity to detect or respond to danger.*
- ❑ *Underdeveloped ability to regulate emotions or understand long-term consequences.*
- ❑ *Increased risk of sexual assault or unintentional injury when under the influence of both.*

Summary of Risks by System

System	Ketamine + Alcohol
Brain	Blackouts, amnesia, sedation, poor judgement
Heart/Lungs	Slowed breathing, aspiration risk, overdose
Motor Skills	Extreme uncoordinated movements, high injury risk
Mental Health	Emotional instability, impulsivity, suicidality
Young People	Increased risk of harm, long-term cognitive effects, vulnerability to trauma

Ketamine and alcohol combined can lead to serious injury or death, often without warning. Because of their opposing but compounding effects—sedation, detachment, and disinhibition—the combination is especially dangerous in social settings and for young, inexperienced users.

Information provided by www.risk-and-resilience.co.uk

Please note: This document is intended as advice and guidance only and does not constitute formal clinical policy or legal instruction.