



# Ketamine Drug

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## Why in News?

In recent times, drug **Ketamine** has surged into the spotlight, triggering debates and discussions surrounding its application, effects, and safety concerns.

## What are the Key Facts about Ketamine?

### ▪ About:

- Ketamine is a dissociative anaesthetic. Doctors use it to **induce general anesthesia** that does not require muscle relaxation.
  - General anesthesia denotes a **sleep-like state**, while dissociative refers to the state of **detachment from the body and the outside world**.
- Developed as an **animal anesthetic in the 1960s**, later approved by the United States Food and Drug Administration (FDA) for human use.
- Recently used to **treat depression and mental illnesses**, also used recreationally.
  - Recreational use **involves snorting, injecting, or smoking**.
- Administered through intravenous (IV), nasal spray, or tablet for mental illness treatment.

### ▪ Effects of Ketamine:

- Ketamine works by blocking the **N-methyl-D-aspartate (NMDA) receptor** in the brain.
  - This receptor is involved in the **transmission of pain signals and in the regulation of mood**. By blocking the NMDA receptor, ketamine can produce analgesia (pain relief) and euphoria.
- It can create pleasant visualizations and a sense of detachment
- Ketamine can produce **hallucinations** similarly to other drugs such as Lysergic acid diethylamide (LSD) and angel dust.
  - Hallucinations are distorted perceptions of sounds and sights.

### ▪ Safety of Ketamine Consumption:

- Ketamine, **deemed safe for medicinal use** by some doctors, faces reported risks **like addiction and cognitive impairment** in high doses. Limited research hampers understanding of prolonged safety of the drug.