Ketamine (also known as Special K, Ketalar, Super-K, “K,” Kit Kat, Cat Vailum, Vitamin K) is a “dissociative” anesthetic with hallucinogenic and painkilling properties. It is approved by the Food and Drug Administration (FDA) for surgical anesthesia and sedation in humans, but is most commonly used by veterinarians for pet surgery. Ketamine is similar to PCP (“Angel Dust”), another drug of abuse.

**So how does it work?**
Several theories have been proposed in an attempt to explain the analgesic and anesthetic effects of ketamine. It is thought that the drug acts on several receptors in the central nervous system, with glutamate being the primary neurotransmitter involved. Ultimately, ketamine prevents the brain from processing auditory, visual, or painful stimuli. With adequate anesthetic doses, the individual may appear to be awake, but is actually in a trancelike state, disassociated from reality. Ketamine also produces a state of amnesia.

**What happens when Ketamine is mixed with....**

**Alcohol?**
When mixed with alcohol, ketamine may cause increased central nervous system depression, resulting in serious medical consequences.

**Marijuana?**
Ketamine is sometimes mixed with marijuana and smoked in order to enhance central nervous system depression effects.

**What if you take Ketamine while you are pregnant?**
Ketamine crosses the placenta. Although ketamine may be used in very low doses for obstetrical anesthesia, severe adverse effects, including respiratory depression, have been reported in infants after the administration of ketamine for this purpose. Abuse of ketamine during pregnancy may cause serious adverse effects for both mother and baby.

**Is there a chance this substance could contain contaminants if it is obtained “on the street”? If so, what are the effects of these contaminants?**

This medication is available to physicians and veterinarians for use in surgical procedures. All of the ketamine encountered by law enforcement to date has been stolen from legitimate sources with veterinary clinics cited as common targets. Ketamine is prepared from the legitimate injectable pharmaceutical product by evaporating the liquid and grinding the residue into a powder. It is distributed as powder in bottles, zip-lock bags, or capsules. If obtained “on the street,” ketamine may potentially contain contaminants or may be mixed with other drugs such as MDMA, amphetamine, methamphetamine, cocaine, and carisoprodol.

**Short term effects of taking Ketamine**

**Judgment**
Sensory changes that may occur while under the influence of ketamine are similar to those that occur with extreme alcohol intoxication. This is often called entering “K-Land” or the “K-Hole.” Hallucinations may occur, along with visual distortions, an amplified sense of touch, muted sense of taste and smell, numbness, and a “floating” feeling of being away from the body. Euphoria (a temporary “high” feeling of well-being or inner peace) may also be experienced. Patients who are taking ketamine may be less likely to feel pain and may actually unknowingly injure themselves. Panic, rage, and paranoia may cause significant distress and facilitate poor, impulsive decisions.

**Memory**
Memory loss (amnesia) is a clinical effect of ketamine use. Individuals often experience confusion and a lost sense of time, senses, and identity.

**Health**
Ketamine can have serious physical effects including paralysis or impaired motor function. Some individuals are unable to speak without slurring. Nausea and vomiting have been reported, particularly if food or drink has been consumed recently. High blood pressure, increased heart rate, involuntary movement, and potentially fatal respiratory failure can occur, particularly with high doses.

**Long term effects of taking Ketamine**

**Judgment**
Impaired memory and mild schizophrenia have been reported several days after taking the drug. Regular, frequent use can cause paranoia and an exaggerated preoccupation with one’s self. These two characteristics cause individuals to see patterns and coincidences in their lives that lead them to believe that they are somehow more important to the world than others. Paranoia is characterized by feelings that people are “out to get them.” Regular ketamine use may result in a tremendous psychological dependence.

**Memory**
“Flashbacks” of experiences while under the influence of ketamine may occur. Additionally, it is thought that long term use may cause permanent memory damage and shorten the attention span. Frequent use can cause alterations in consciousness and may lead to mental disorders.

**Health**
Long-term use may result in physical addiction. If repeatedly abused in large doses, ketamine can cause failure of the cardiovascular system, resulting in death.

---

**References**