

Phencyclidine (PCP)

Profile

Phencyclidine (PCP) is a synthetic dissociative drug originally developed as a general anesthetic. The effects of dissociative drugs like PCP include feelings of detachment from the environment and self. In its pure form, PCP is a white crystalline powder that dissolves easily in water or alcohol. As a liquid, it is clear, yellow, or tan and often is sold in vanilla extract bottles. PCP is also mixed with dyes to produce colored powder, tablets or capsules.¹ It is currently a Schedule II controlled substance.

History

First synthesized in 1926, PCP was developed by Parke, Davis and Company under the trade name Sernyl for use as a general anesthetic for humans in the 1950's,² and subsequently was used in veterinary medicine as a tranquilizer.³ By 1965, use with humans was discontinued as clinical studies revealed that patients experienced delusions, severe anxiety and agitation when emerging from the drug's effects.⁴ Today, use even in the veterinary community is rare, though small amounts continue to be manufactured for research purposes.⁵

Manufactured in clandestine laboratories, PCP emerged as a substance of abuse in the mid-1960's. It often appeared in pill form and was known as "The PeaCe Pill," a term that contributed to the acronym PCP.⁶ Its use spread in the 1970's and peaked around 1978 as snorting or smoking (giving users a more immediate high) the powder form of PCP became more popular.⁷

PCP in Disguise

In the time it has been on the illicit drug scene, PCP has been sold under the guise of a number of other drugs, including THC, methamphetamine, mescaline, and LSD.⁸ Today we can add MDMA and formaldehyde to that list.

According to the DEA, in 2000 law enforcement agencies reported that some pills sold as MDMA or ecstasy actually contain PCP or a combination of PCP and other substances.⁹ The website EcstasyData.org, which provides results of laboratory tests done on pills sold as ecstasy, confirms that PCP has been found with other drugs in pills that had been sold as ecstasy across the country. Pills with such names as "green kryptonite," "orange pokemon," and "purple tear drops" contained ketamine, pseudo/ephedrine, caffeine, or methamphetamine in addition to PCP, but contain little or no MDMA.¹⁰

Some drug users claim they dip marijuana or tobacco cigarettes in embalming fluid (known as "loveboat" or "dippers") to enhance the high. While these users believe that what they are smoking has been treated with formaldehyde, researchers speculate that this fluid is actually PCP, sometimes referred to as "embalming fluid," or formaldehyde cut with PCP. Some who use loveboat experience effects very similar to the effects of

PCP, including delusions, difficulty concentrating, and agitation. It is difficult to substantiate these suspicions, and researchers have called for further analysis.¹¹

Methods of Use

PCP is ingested orally, snorted, smoked, or injected.¹² When the powder form is snorted or sprinkled on marijuana, parsley, or mint, and smoked, the effects are felt within 2 to 5 minutes and last 4 to 6 hours.¹³ Users dip tobacco or marijuana cigarettes in liquid PCP and smoke it as well.¹⁴ PCP can be pressed into pills or put in capsules and swallowed; when ingested orally, effects are felt in 30 to 60 minutes and last 6 to 24 hours.¹⁵ Injection of PCP appears to be uncommon.

PCP's Effects on the Brain

PCP disrupts the functioning of receptors for the neurotransmitter glutamate, which plays a major role in the perception of pain as well as in learning, memory, and emotion. It also influences the actions of the neurotransmitter dopamine, which causes the euphoria associated with drug use.¹⁶

Addiction and Tolerance

There is little research on addiction to PCP in humans, and reports of physical dependence are rare.¹⁷ A 1981 study reported that PCP users who sought treatment for PCP withdrawal experienced depression, drug craving, increased appetite, and increased need for sleep.¹⁸ Some evidence suggests that psychological dependence may develop in those who use high doses (10 mg or more) of PCP.¹⁹

Tolerance to PCP has not been directly studied in humans. Users report that they increase the amount of PCP they take over time to achieve the same effects, which suggests a possible tolerance to the drug.²⁰

Short Term Effects

The effects of PCP are influenced by the size of the dose, the setting in which it is taken, the user's expectations of and past experience with the drug, and the user's personality.²¹ The following psychological effects may occur and vary in intensity, depending on the dosage. Doses of less than 5 mg may produce milder effects, while doses of 10 mg or more may lead to more intense and erratic behavior.²²

- Mild to intense euphoria
- Relaxation or drowsiness
- Feelings of unreality and dissociation with the environment
- Distorted sense of one's body, including a feeling of weightlessness
- Distorted sense of time and space
- Visual and auditory hallucinations and other sensory distortions
- Difficulty concentrating and thinking
- Anxiety

- Agitation
- Paranoid thoughts
- Confusion and disorientation
- Intense feelings of alienation
- Depression
- Bizarre or hostile behavior
- Obsession with trivial matters
- Grandiose delusions
- Panic, terror, and the overwhelming fear of imminent death

The physical effects may also vary in intensity with the dose:²³

- Impaired motor skills
- Blurred vision and constricted pupils
- Dizziness
- Painful reaction to sound
- Blank staring
- Speech disturbances, ranging from difficulty articulating to incoherent speech or inability to speak
- Muscular rigidity
- Decreased sensitivity and awareness of pain, touch, and position
- Stupor or coma
- Irregular heartbeat
- Alternately abnormally low and abnormally high blood pressure
- Slow, shallow, and irregular breathing
- Nausea
- Vomiting
- Salivation
- Increased body temperature and sweating alternating with chills and shivering
- Very high doses may result in an overdose and lead to coma, convulsions, or death

Effects of Long Term Use²⁴

- “Runs”- Chronic users may binge use PCP, taking it repeatedly for 2 or 3 days at a time without eating or sleeping, followed by a period of sleep. These runs may occur as many as four times in a month.
- Impaired memory
- “Flashbacks” similar to those experienced by chronic LSD users
- Persistent speech problems, such as stuttering, inability to articulate, or the inability to speak at all
- Chronic and severe anxiety and depression, possibly leading to suicide attempts
- Social withdrawal and isolation
- Toxic psychosis may appear in chronic users who do not have a prior history of psychiatric disturbances. The symptoms of toxic psychosis are aggressive or hostile behavior, paranoia, delusional thinking and auditory hallucinations.

PCP and Violence

Despite its reputation in the media as a drug that causes bizarrely violent behavior and gives users superhuman strength, research does not support the idea that PCP itself is the cause of such behavior and strength. Instead, those who experience violent outbursts while under the influence of PCP often have a history of psychosis or antisocial behavior that may or may not be related to their drug abuse.²⁵ Additionally, someone under the influence of PCP is often unaware of the dangers and limitations they face, and may react to physical confrontations in a way that makes it seem as though they have extraordinary muscular strength.²⁶

Overdose and Death

PCP overdose deaths may occur after taking a large dose, though many PCP related deaths result from delusions and other psychological consequences of the drug's use. There have been reports of death due to accidental drowning, leaping from high places, and motor vehicle accidents in addition to violent episodes of self-mutilation, suicides, and homicides.²⁷

Slang Terms for PCP²⁸

Straight PCP:

- Angel Dust
- Amoeba
- Amp
- Belladonna
- Animal Trank
- Zoom
- Peace Pills
- Boat
- Sherm Sticks
- Super Grass
- STP
- Embalming Fluid

Marijuana/PCP combination:

- Wet
- Dust Blunt
- Happy Stick
- Fry Sticks
- Love Boat
- Illy
- Dippers

PCP and MDMA:

- Elephant Flipping
- Pikachu

Links

NIDA Drugs of Abuse: PCP <http://www.nida.nih.gov/DrugPages/PCP.html>

DEA: Phencyclidine (PCP) <http://www.dea.gov/concern/p.html#4>

ONDCP: Hallucinogens

<http://www.whitehousedrugpolicy.gov/drugfact/hallucinogens/index.html>

¹ National Institute on Drug Abuse. (2001). Research Report Series: Hallucinogens and Dissociative Drugs (NIH Publication number 01-4209). Washington, DC: National Institute of Health.

² Rudgley, Richard. (1998). The Encyclopedia of Psychoactive Substances. New York: St. Martin's Press.

³ Karch, Steven B. (editor). (1998). Drug Abuse Handbook. Boca Raton, FL: CRC Press.

⁴ NIDA 2001; Karch (1998).

⁵ Karch (1998).

⁶ Karch (1998).

⁷ Carson-DeWitt, Rosalyn (editor). (2001). Encyclopedia of Drugs, Alcohol, and Addictive Behavior (2nd edition). New York: Macmillan Reference USA.

⁸ Brands, Bruna, Beth Sproule and Joan Marshman (editors). (1998). Drugs & Drug Abuse (3rd edition). Toronto, Ontario: Addiction Research Foundation.

⁹ National Drug Intelligence Center. (2001). Information Bulletin: PCP Tablets sold as MDMA (product no. 2001-L0424-003). Washington, DC: Department of Justice.

¹⁰ Ecstasydata.org. (2002). Ecstasy Lab Testing & Analysis Reports- Ecstasy Pill Reports (search on PCP). Retrieved October 30, 2006, from

<http://www.ecstasydata.org/results.php?A=SearchAll&Start=0&S=pcp&OldSort=DPD&NewSort=&SField=Substance>.

¹¹ Holland, Julie A.; Nelson, Lewis, Ravikumar, P.R. and William N. Elwood. 1998. Embalming Fluid-Soaked Marijuana: New High or New Guise for PCP? Journal of Psychoactive Drugs 30(2): 215-219.

¹² Brands, et al. (1998).

¹³ NIDA 2001; Recreational Drugs Information. N.D. PCP as a Recreational Drug. Retrieved October 30, 2006, from <http://www.a1b2c3.com/drugs/pcp2.htm>.

¹⁴ Karch (1998).

¹⁵ Recreational Drug Information. ND.

¹⁶ NIDA (2001).

¹⁷ Brands, et al. (1998).

¹⁸ Carson-Dewitt (2001).

¹⁹ Brands, et al. (1998).

²⁰ Carson-Dewitt (2001).

²¹ Brands, et al. (1998).

²² Brands, et al. (1998).

²³ Brands, et al. (1998).

²⁴ Brands, et al. (1998).

²⁵ Roth, Jeffrey A. (1994). Psychoactive substances and violence. Washington, DC: National Institute of Justice.

²⁶ Carson-Dewitt (2001).

²⁷ Brands, et al. (1998).

²⁸ Office of National Drug Control Policy. N.D. Street terms: Drugs and the drug trade; Drug type: PCP (phencyclidine). Retrieved October 30, 2006, from

<http://www.whitehousedrugpolicy.gov/streetterms/ByType.asp?intTypeID=8>.

