

Phencyclidine — Effects on Human Performance and Behavior

REFERENCE: Mozayani A: Phencyclidine — Effects on human performance and behavior; *Forensic Sci Rev* 15:61–74; 2002.

ABSTRACT: The history, symptoms, diagnosis and treatment of phencyclidine hydrochloride (PCP) intoxication, the pharmacology of PCP and the detection, identification and analysis of PCP are reviewed. The history of PCP from its synthesis in the early 1950's to the present is discussed. Intoxication with low to moderate doses of PCP resembles an acute, confusing state. High doses may cause serious neurological and cardiovascular complications and the patient is often comatose for several days. Treatment involves supportive psychological and medical measures, and acidification of the urine may further increase PCP clearance. The metabolism of PCP involves primarily hydroxylation followed by conjugation and elimination in the urine. Analysis can be accomplished by a number of instrumental methods, and several commercial test kits based on antigen-antibody interactions are available. PCP's effect on human performance and behaviour is due to its ability to alter the perception of reality in the user. PCP causes a range of effects that include hallucinations, delirium, disorientation, agitation, muscle rigidity, ataxia, nystagmus, seizures, and stupor. PCP has stimulant, depressant, hallucinogenic and analgesic effects. Which of these will be most pronounced is unpredictable and depends on the user's personality, psychological state and the environment of use. The impairment can manifest itself as over-aggressive or reckless driving behavior, or may mimic depressant effects due to PCP's anesthetic and depressant effect.

KEY WORDS: Analysis, driving performance, drug of abuse, interpretation, PCP, phencyclidine, postmortem, toxicology.
