

# DESIGNER DRUGS

## What Are Designer Drugs?

Designer drugs are synthetic (lab-made) versions of drugs that are designated controlled substances under U.S. law. Designer drugs are similar in structure and effect to other drugs; they are made in clandestine laboratories to mimic the psychoactive effects of controlled drugs. Designer drug street names vary with time, place, and manufacturer, and they change frequently.

Commonly known types of designer drugs include

- Analogs of fentanyl and meperidine (both synthetic opioids)
- Phencyclidine (PCP)
- Amphetamines and methamphetamines (which have hallucinogenic and stimulant properties)

### FENTANYL ANALOGS

These are the most commonly known designer drugs. Street names include

- Chine White
- Tango and Cash
- Goodfella

Fentanyl was first introduced in 1968 as a synthetic narcotic to be used in surgical procedures. Clandestine laboratories began producing fentanyl derivatives that were pharmacologically similar to heroin and morphine. However, fentanyl analogs are 80 to 1,000 times more potent than heroin. They have similar effects to heroin. They have a very rapid onset and short duration of action, and even a small dose of fentanyl analog can lead to sudden death, caused by stopped breathing resulting from the drug's powerful toxic effects.

Injection is the most common route of administration, although smoking and sniffing are becoming more popular. Respiratory paralysis can kill a victim so quickly that often the dead user is found with a needle still present in the arm. By 1998, fentanyl analogs had been found responsible for the deaths of 150 persons in the United States.

### MEPERIDINE ANALOGS

Known by the trade name Demerol, meperidine is a Schedule II narcotic (which means that it has a high potential for abuse as well as recognized medical uses). Meperidine use on the street increases when heroin is scarce, because the two drugs have similar effects.

Meperidine analogs that have appeared on the streets include MPPP (1-methyl-4-phenyl-4-pipecolinopyrrolidine) and PEPAP (1-[2-[phenylethyl]-4-acetoxypiperidine). Clandestine manufacture of MPPP, in which the pH is too low or the temperature is too high, can result in an impurity called MPTP (1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine). MPTP has caused severe, irreversible brain damage in some individuals. It

results in a syndrome very similar to Parkinson's disease: increased muscle tone, difficulty moving and speaking, drooling, and rigidity of the upper extremities.

## **METHAMPHETAMINE ANALOGS**

The methamphetamine analogs of most concern are MDA (3,4-methylenedioxyamphetamine) and MDMA (3,4-methylenedioxy-methamphetamine).

MDA, also known as "love drug," results in increased need for interpersonal relationships. Users experience a heightened need to talk to and be with other people. MDA was even used widely by psychiatrists, until it was discovered to be causing brain damage.

MDMA is most often referred to as "Adam" or "ecstasy." It stimulates the nervous system and has hallucinogenic effects. MDMA can result in acute psychiatric as well as physical disturbances, such as

- Panic
- Anxiety
- Depression
- Paranoid thinking
- Muscle tension
- Nausea
- Blurred vision
- Faintness
- Chills
- Sweating
- Increased heart rate and blood pressure
- Jaw clenching
- Tremor
- Hallucinations