

Club Drugs

MDMA (Ecstasy), Rohypnol, GHB, and Ketamine are among the drugs used by teens and young adults who are part of a nightclub, bar, rave, or trance scene. Raves and trance events are generally night-long dances, often held in warehouses. Many who attend raves and trances do not use drugs, but those who do may be attracted to the generally low cost, seemingly increased stamina, and intoxicating highs that are said to deepen the rave or trance experience.

Current science, however, is showing change to critical parts of the brain from use of these drugs. Also, in high doses most of these drugs can cause a sharp increase in body temperature (malignant hyperthermia) leading to muscle breakdown and kidney and cardiovascular system failure.

MDMA (Ecstasy)

MDMA is a synthetic, psychoactive drug with both stimulant (amphetamine-like) and hallucinogenic (LSD-like) properties. Street names for MDMA include Ecstasy, Adam, XTC, hug, beans, and love drug. Its chemical structure (3-4 methylenedioxymethamphetamine, "MDMA") is similar to methamphetamine, methylenedioxyamphetamine (MDA), and mescaline - these are synthetic drugs known to cause brain damage. MDMA usually is taken in pill form, but some users snort it, inject it, or use it in suppository form.

Many problems MDMA users encounter are similar to those found with the use of amphetamines and cocaine. Psychological difficulties can include confusion, depression, sleep problems, severe anxiety, and paranoia. Physical problems can include muscle tension, involuntary teeth clenching, nausea, blurred vision, faintness, and chills or sweating. Use of the drug has also been associated with increases in heart rate and blood pressure, which are special risks for people with circulatory or heart disease. Recent research also links MDMA use to long-term damage to those parts of the brain critical to thought, memory, and pleasure.

MDMA use is increasing in most metropolitan areas of the United States.* In Boston and New York City, it appears to be spreading beyond the club scene to the streets. Content of the MDMA pills also varies widely, and may include caffeine, dextromethorphan, heroin, and mescaline. In some areas of the country, the MDMA-like substance paramethoxyamphetamine (PMA) has been involved in the deaths of people who mistakenly thought they were taking true MDMA. The deaths were due to complications from hyperthermia.

In a 5-year retrospective of emergency room mentions of club drugs,** the Substance Abuse and Mental Health Services Administration reports that emergency room mentions involving MDMA increased from 250 in 1994 to 2,850 in 1999.

Rohypnol, GHB, and Ketamine

GHB, Rohypnol, and ketamine are predominantly central nervous system depressants. Because they are often colorless, tasteless, and odorless, they can be added to beverages and ingested unknowingly.

These drugs emerged a few years ago as "date rape" drugs. Because of concern about their abuse, Congress passed the "Drug-Induced Rape Prevention and Punishment Act of 1996" in October 1996. This legislation increased Federal penalties for use of any controlled substance to aid in sexual assault.

GHB

Since about 1990, GHB (gamma hydroxybutyrate) has been abused in the U.S. for euphoric, sedative, and anabolic (body building) effects. It is a central nervous system depressant that was widely available over-the-counter in health food stores during the 1980s and until 1992. It was purchased largely by body builders to aid fat reduction and muscle building. Street names include Liquid Ecstasy, Soap, Easy Lay, and Georgia Home Boy. Even though GHB may be difficult to distinguish from water, it has appeared in law enforcement indicators, including seizures of large amounts in Minneapolis/St. Paul and Phoenix.*

Coma and seizures can occur following abuse of GHB and, when combined with methamphetamine, there appears to be an increased risk of seizure. Combining use with other drugs such as alcohol can result in nausea and difficulty breathing. GHB may also produce withdrawal effects, including insomnia, anxiety, tremors, and sweating.

GHB and two of its precursors, gamma butyrolactone (GBL) and 1,4 butanediol (BD) have been involved in poisonings, overdoses, date rapes, and deaths. These products, obtainable over the internet and sometimes still sold in health food stores, are also available at some gyms, raves, nightclubs, gay male parties, college campuses, and the street. They are commonly mixed with alcohol (which may cause unconsciousness), have a short duration of action, and are not easily detectable on routine hospital toxicology screens.*

GHB emergency room mentions increased from 55 in 1994 to 2,973 in 1999.** In 1999, GHB accounted for 32 percent of illicit drug-related poison center calls in Boston. In Chicago and San Francisco, GHB use is reportedly low compared with MDMA, although GHB overdoses seem frequent compared with overdoses related to other club drugs.

Rohypnol

Rohypnol, a trade name for flunitrazepam, has been of particular concern for the last few years because of its abuse in date rape. It belongs to a class of drugs known as benzodiazepines. When mixed with alcohol, Rohypnol can incapacitate victims and prevent them from resisting sexual assault. It can produce "anterograde amnesia," which means individuals may not remember events they experienced while under the effects of the drugs. Also, Rohypnol may be lethal when mixed with alcohol and/or other depressants.

Rohypnol is not approved for use in the United States, and its importation is banned. Illicit use of Rohypnol started appearing in the United States in the early 1990s, where it became known as "roopies," "roofies," "roach," and "rope." Emergency room mentions of Rohypnol were 13 in 1994 and increased to 624 in 1998; they decreased to 540 in 1999.**

Abuse of two other similar drugs appears to be replacing Rohypnol abuse in Miami, Texas, and Boston. These are clonazepam, marketed in the U.S. as Klonopin and in Mexico as Rivotril, and alprazolam (marketed as Xanax). Rohypnol, however, continues to be a problem among treatment admissions in Texas, particularly among young Hispanic males along the Mexican border.

Ketamine

Ketamine is an anesthetic that has been approved for both human and animal use in medical settings since 1970; about 90 percent of the ketamine legally sold is intended for veterinary use. It can be injected or snorted. Ketamine is also known as "Special K" or "vitamin K".

Certain doses of ketamine can cause dream-like states and hallucinations, and it has become common in club and rave scenes and has been used as a date rape drug.

At high doses, ketamine can cause delirium, amnesia, impaired motor function, high blood pressure, depression, and potentially fatal respiratory problems.

Emergency room mentions of ketamine rose from 19 in 1994 to 396 in 1999.** Recent use has been reported more frequently among white youth in many cities, including Atlanta, Baltimore, Boston, Chicago, Minneapolis/St. Paul, Newark, New York City, Phoenix, San Diego, Texas, and Washington, DC.*

See also NIDA's Community Alert Bulletin on Club Drugs, available on NIDA's website at www.clubdrugs.org and also from the National Clearinghouse for Alcohol and Drug Information (NCADI) at 1-800-729-6686.

* The information in this fact sheet is taken primarily from the June 2000 Highlights and Executive Summary, Epidemiologic Trends in Drug Abuse, a summary of the proceedings of the June 2000 meeting of NIDA's Community Epidemiology Work Group (CEWG). CEWG is a NIDA-sponsored network of researchers from 21 major U.S. metropolitan areas and selected foreign countries who meet semiannually to discuss the current epidemiology of drug abuse.

** These data are from The DAWN Report, December 2000, by the Substance Abuse and Mental Health Services Administration (SAMHSA). The report is available online at www.samhsa.gov or by calling 1-800-729-6686.