



# TRAINING BULLETIN

LOS ANGELES POLICE DEPARTMENT

BERNARD C. PARKS, CHIEF OF POLICE

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**FLUNITRAZEPAM (Trade name "ROHYPNOL")  
AND  
GAMMA HYDROXY BUTYRATE (aka "GHB")**

This training bulletin has been published to provide an in-depth look at the drugs Flunitrazepam and Gamma Hydroxy Butyrate (GHB). This bulletin will discuss the use, packaging, and the objective symptoms and effects of the drugs. Throughout this bulletin Flunitrazepam will be referred to as Rohypnol, its trade name, and Gamma Hydroxy Butyrate will be referred to as GHB.

Rohypnol, a drug related to Valium, but ten times more powerful than Valium, became a Controlled Substance in California as of January 1, 1997. Gamma Hydroxy Butyrate (GHB) became a Controlled Substance in California as of September 28, 1997. It is important that officers are aware of these drugs and their potential use in committing sexual assaults and other crimes.

**FLUNITRAZEPAM - Trade name ROHYPNOL**

Rohypnol (also called the "Rape Drug") first surfaced in the United States in early 1992. The drug shipments came from Mexico and Columbia. Rohypnol is neither manufactured nor sold legally in the United States. However, it is produced and sold by prescription in 64 countries in Europe and Latin America. Foreign prescriptions are not honored in the U.S.

Names for Rohypnol in California include: "Mexican Valium," "Roofies," "Ruffies," "Roches" (for the Manufacturer), "Roaches," "Poor Man's Quaaludes," and the "Forget Pill." The name is often mispronounced as Ropanol, Robinol, Rohibinol or Reynol.

**METHODS OF PACKAGING**

Rohypnol is packaged as a small white tablet in a blister pack, and is manufactured by the pharmaceutical company Hoffman-La Roche. In the original package it appears to be just another prescription medication and does not attract attention as contraband. The pill will indicate "Roche 1" or "Roche 2," depending on the dosage and will be either single or double-scored on the opposite side. Rohypnol has been found unpackaged and in containers marked "Roche Vitamins," however Hoffman-La Roche does not make vitamins. Sellers have been known to carry a homemade pouch or body-pack belt which is kept inside the waistband and casually dispense the pills individually or in a strip from the hidden pouch.

**EFFECTS AND SYMPTOMS OF ROHYPNOL**

Rohypnol is a central nervous system depressant and a hypnotic sedative prescribed legally outside the United States for diminishing anxiety, skeletal and muscle relaxation and sleep deprivation. According to the manufacturer, it is legitimately used in "conscious surgery" where the patient's cooperation is needed. The amnesia effect of this drug is desirable in this instance so that the patient will not recall the surgery. A 2mg tablet is considered seven to ten times more potent than one Valium in terms of sedative effect.

Rohypnol is most commonly taken orally, often in conjunction with alcohol or other drugs such as heroin. The effects begin within 30 minutes, peak within two hours, and may persist for eight hours or more. Adverse effects include decreased blood pressure, memory impairment, drowsiness, visual disturbances, dizziness, confusion, gastrointestinal disturbances, and urinary retention. Though classified as a depressant, this drug may in contrast induce excitability or aggressive behavior in some users. In countries where this drug is legal, it is used in the short-term treatment of insomnia and as a pre-anesthetic medication. It can cause dependence and/or withdrawal symptoms, including hallucinations, delirium, and cardiovascular collapse.

Commonly called "Roofies", Rohypnol has received widespread media attention as the "Rape Drug." The Roche tablet may be crushed into powder form or even diluted into liquid form. In powder form, it may be stealthily slipped into a victim's drink and victim is unable to taste the drug.

When combined with alcohol or other drugs, Rohypnol may cause loss of inhibition, amnesia and prolonged blackouts. Sexual assault victims occasionally report brief periods of lucid recall during the blackout, however, they are unable to physically resist or escape and lapse back into the blackout. Many report that they awaken in approximately ten to twelve hours, but may be fatigued, confused and unable to focus their attention for up to two days after ingestion. Ongoing use of Rohypnol may lead to dependence. Chronic users experience a lessening effect of the amnesia and unconsciousness.

#### **GAMMA HYDROXY BUTYRATE (GHB)**

Gamma Hydroxy Butyrate (GHB) is a hypnotic and "behavioral" central nervous system (CNS) depressant. The symptoms presented to the law enforcement officer will resemble a depressant, but in fact GHB is a CNS excitant which puts brain waves into epileptic seizure mode (whether the body jerks or not), overloads the brain, and effectively shuts down the rest of the central nervous system. Since GHB is processed in the body in the same way as alcohol, it mimics behavior of alcohol intoxication. The happy alcohol drunk will likely be a happy GHB drunk and a mean, aggressive alcohol drunk will likely be a mean, aggressive GHB drunk. GHB is wildly intoxicating, especially when mixed with alcohol and tends to stimulate sexual behavior. Thus a suspect running through a crowd groping women may likely be on GHB or GHB in combination with alcohol.

At first, law enforcement officers and hospital emergency rooms were seeing only extreme intoxication and overdose scenarios, with individuals far too incapacitated to drive. Seizures and vomiting are common at this level. But Internet user billboards are currently stressing extremely low doses of GHB. This is only partly to avoid the medical risk and attention-getting problems of overdoses. The low doses are also to maximize the "spiritual," out of body type of experience reported during use of GHB, Ketamine (Special K) and/or MDMA (Ecstasy). This means officers will be seeing increasing GHB problems in driving under the influence situations. In low-dose usage, nystagmus is not commonly evident but may be seen at intoxication or overdose levels.

In the late 1980's, GHB was first introduced by bodybuilders who believed it would stimulate the body's production of growth hormones. Bodybuilders are still heavily involved in the abuse and trafficking of GHB. Its presence has increased in driving under the influence cases, sexual assault cases and in overdose cases, especially at "RAVE" type parties. It has been found in mouthwash bottles in Los Angeles area high schools. It can be extremely deadly, even in single-dose, one-time use. For example, it cancels the protective gag reflex; in one case, a young female victim died when left unattended in a GHB coma with chewing gum in her mouth.

GHB has no accepted medical use in the United States, and is not produced by any major pharmaceutical company in this country. It is available legitimately in Europe as an anesthetic, though it gained little acceptance medically in any country. GHB is an anesthetic (sleep inducer) without analgesic (pain reliever) properties. It does occur in the human body in trace amounts, but has no nutritional value.

#### **METHODS OF PACKAGING**

GHB is easily made using two basic ingredients, Gamma Butyl Lactone, a solvent used for degreasing engines or cement, and Sodium Hydroxide, a lye. GHB is primarily distributed as a liquid. The bulk of GHB in circulation is a deadly liquid "home brew." No standard container has been identified for distribution of GHB, however it has been found in various size plastic or glass containers, such as milk or water jug type containers, sports-type bottles, vitamin or prescription pill containers and mouthwash bottles.

#### **EFFECTS AND SYMPTOMS OF GAMMA HYDROXY BUTYRATE**

In an increasing number of cases, GHB is being used in conjunction with alcohol and other drugs, with detrimental effects. It is difficult to isolate the impact of GHB ingestion since it is so typically taken with an ever-changing array of other drugs. There is no antidote for GHB. Overdose victims are put on life support until the danger passes. Officers encountering possible GHB overdose victims should place them on their left side, keeping their airway open. Victims should not be allowed to remain face down or on their back due to the risk of choking.

Typical side effects from ingested doses include dizziness, nausea, vomiting, stiffening of muscles, disorientation, coma (sometimes abrupt and profound), uncontrollable seizures and respiratory depression or collapse. GHB is primarily manufactured in "bath tubs" with little regard for proportions and cleanliness. This results in increased danger from contamination and excessive PH level (resulting in the user drinking "drain cleaner") and thus more unpredictable reactions. At least 20 deaths during the past five years are documented as GHB related.

The effects of GHB can generally be felt within five to twenty minutes after ingestion. Effects usually last no longer than one to four hours, although they can be indefinitely prolonged through repeat doses. GHB is completely metabolized into carbon dioxide and water, leaving absolutely no residue in a person's system after 10-12 hours. GHB can be detected in a person's blood for four to five hours after ingestion and in urine for up to 10-12 hours.

Unlike the use of Rohypnol where the victims are more likely to be totally unsuspecting and unable to taste the drug slipped into their drink, victims of GHB sexual assaults or overdoses are typically convinced to try GHB as an "energy drink" or are talked into trying an unusual concoction. The salty taste is still noticeable, but the victim may simply not sense the danger.

While Rohypnol is known for its paralyzing effect and amnesia, obvious benefits to an attacker, GHB is known for its intense intoxication and enhancement of sexual interest. Thus, GHB provides a different set of advantages to an attacker and a different level of nightmare for both the victim of sexual assault and for the law enforcement agency seeking to prosecute the case.

**COLLECTION OF EVIDENCE**

Both Rohypnol and GHB are evident in the blood for four hours after ingestion, but victims are rarely examined and tested during that early time frame. Urine has been determined to be the best sample for detecting Rohypnol and GHB. For this reason, the newly implemented countywide sexual assault evidence collection kit automatically includes urine sample containers. Rohypnol metabolizes out of one's system via urine within 24 to 60 hours, with 36 hours being the best window of opportunity for testing. In the case of GHB, 90-95 percent of it metabolizes into carbon dioxide and water, mostly leaving the body through one's breath after four hours in the blood, with only five to ten percent passing out via the urine.

GHB may be readily detected in drinks and residue, but is more difficult to identify in body fluids because of its short life and rapid oxidation process. Officers should be alert at the crime scene for any loose pills, vials, empty blister pack fragments, drinking glasses, milk jugs or sports-type bottles or small vials that may harbor important evidence of drug involvement. Witness statements are increasingly important in these types of cases to establish both normal and abnormal behavior of the victim or suspect, and the time sequence involved.

**SUMMARY**

Officers should be aware of how these drugs are used by individuals for recreation or for use in sexual assault or other crimes. In cases of accidental overdose(s) at locations where officers have determined that these drugs were used for recreational purposes, Injury Reports should be taken.

If these drugs were given to victims who were unaware of their presence, for purposes of sexual assault or other crimes, a detailed investigation is required. At the very least it could constitute poisoning. In these cases, officers should contact Area detectives.

Flunitrazepam (Rohypnol) and Gamma Hydroxy Butyrate (GHB) are illicit drugs which produce unique and varied effects. The information contained in this training bulletin will assist officers in conducting thorough investigations related to Rohypnol and Gamma Hydroxy Butyrate (GHB).

**REVIEW**

1. What are some possible symptoms that may occur in cases of Rohypnol and GHB use?

**ANSWER** - Symptoms of Rohypnol include: decreased blood pressure, memory impairment, drowsiness, visual disturbances, dizziness, confusion, gastrointestinal disturbances, and urinary retention.

Symptoms of GHB include: dizziness, nausea, vomiting, stiffening of muscles, disorientation, coma, uncontrollable seizures and respiratory depression or collapse.

2. What are the most common forms of Rohypnol and GHB?

**ANSWER** - Rohypnol is commonly a small white tablet that has "Roche 1" or "Roche 2" on one side and will be either single or double-scored on the opposite side. GHB is commonly a liquid.

3. How long after ingestion can Rohypnol and GHB be detected in a blood sample?

**ANSWER** - Four hours for both.

4. How long after ingestion can Rohypnol and GHB be detected in a urine sample?

**ANSWER** - Four to 60 hours for Rohypnol (36 most likely) and 4 to 12 hours for GHB.