



## **Date-Rape Drugs**

There are some drugs that can be used by criminals to subjugate the will of people, creating in them a state of semi-consciousness and anterograde amnesia for sexual abuse or even for the purpose of deception and robbery. For this reason they are called "date-rape drugs". Among these, we find GHB (gamma hydroxybutyric acid, a substance known for pharmacological/therapeutic use in the treatment of alcohol dependence), and its precursor GBL. GHB is known in the jargon as a "scoop", "cherry" or "liquid ecstasy", although its chemical structure is very different from that of ecstasy. Another substance used as a "rape-drug" appears to be ketamine, as it produces amnesia, disinhibition, dream state, dulling of the sensorium, hallucinations, delirium, confusion. Finally, some hypnotic benzodiazepines so-called Z-drugs (zaleplon, zolpidem, zopiclone), are among the substances that can reduce the alertness of the person who assumes and that were found in cases of violence or deception.

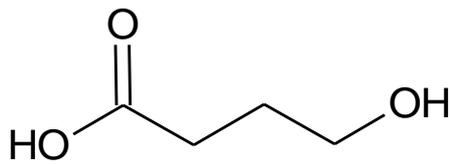
### **Description**

The use of these substances is an issue of growing interest in health and social care in the world and also in Italy. Currently, the phenomenon is often misunderstood and underestimated, especially for the lack of facilities able to provide analytical toxicological data and for the poor presentation of victims to health facilities. Definitely worth mentioning and worthy of attention is the lack of information and prevention programs that reduce the risk for sexual assault, especially among young women, often consumer of alcohol and various drugs.

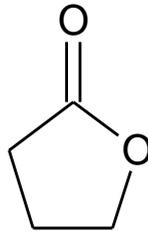
GHB is a molecule with depressing effect of the central nervous system, initially developed as an anesthetic drug and subsequently used in studies for the treatment of narcolepsy (sleep disorder) and in the treatment of alcohol dependence. The effect of GHB is dose-dependent: 10 mg/kg has stimulant effects (relaxation, disinhibition), from 20-30 mg/kg has sedative effects (drowsiness, amnesia), from 50-70 mg/kg has respiratory depression and coma (all incremented if there is concomitant use of alcohol). It should be noted that in preparations sold on the illicit market, widely varying doses than those stated are often found, thus increasing the risk of overdose. GHB may be added in drinks without the awareness of its presence for those who consume it, being tasteless, colorless and odorless. GHB has a time of onset and a duration of effect oscillating between 15-30 minutes, up to 1-2 hours, with a half-life (dose dependent) oscillating between 20-60 minutes. An important fact to note is that it is detectable in blood for 5-8 hours, and in urine for 10-12 hours. This rapid effect of disappearance introduces diagnostic difficulties because victims often reconstruct the event only after a few days and then in a time that does not allow the correct acquisition of biological samples containing the substance.

### **GHB**

**Chemical structure of GHB (gamma hydroxybutyric acid) and GBL (gamma hydroxybutyric lactone).**



**GHB (gamma hydroxybutyric acid)**



**GBL (gamma hydroxybutyric lactone)**

The main features of the rape drugs are as follows:

- easily available
- colorless, odorless, tasteless
- effective at low doses
- ability to dissolve rapidly in drinks
- rapidly absorbed after oral administration
- rapid onset of sedation
- ability to induce relaxation and disinhibition of voluntary muscles
- ability to induce retrograde amnesia in victim

**Main features of the rape drugs**



**Photos of some products registered by the National Early Warning System resulted to contain GHB/GBL**

In Italy, the molecules GHB, GBL, ketamine, zaleplon, zolpidem and zopiclone are included in the tables of the Law on the regulation of narcotic drugs and psychotropic substances, prevention, treatment and rehabilitation of drug addiction (DPR 309/90 as amended).

**Legal status**