

# GHB

## COMMON & BRAND NAMES

G, Gina, Liquid E, GBH, Liquid X, Sodium Oxybate.

## EFFECTS CLASSIFICATION

Depressant Intoxicant

## CHEMICAL NAME

gamma-hydroxy butyrate

## DESCRIPTION

GHB is a sedative used both as a sleep-aid and as a recreational intoxicant. It is known for its ability to induce a short (several hours) coma-like sleep at high doses. A number of GHB-related deaths in combination with its dependence potential led to it being made illegal.

## HISTORY

GHB was developed in the early 60s as a human anesthetic, but was discontinued due to unwanted side effects. It's use as a sleep aid and body building supplement in the 80s and as a recreational psychoactive in the 90s led to it being scheduled in the U.S. in March of 2000

## DESCRIPTION

GHB (gamma hydroxy butyrate) is a naturally occurring component of human cells and in wine. It is used most commonly in the form of a chemical salt (Na-GHB or K-GHB) which is taken recreationally as a depressant with effects quite similar to those of alcohol. These salts are powders but are most often mixed with water for recreational use. While GHB is most notorious for a few cases where it has been given to unsuspecting individuals, it is more commonly used as a recreational intoxicant like alcohol, as a sleep-aid, or as a supplement by body-builders.

One of the major concerns with GHB is that the recreational dosage range is narrow and even small overdoses can cause temporary unconsciousness (a type of coma) and large overdoses (poisonings) can be life-threatening. There are two other chemicals which are used as GHB equivalents: 1.4-butanediol and gamma butyrolactone.

## DOSE

A standard recreational dose of pure GHB powder is between 1 - 3 g, though some people use as much as 4-5 grams in a single dose: especially frequent users who have developed a tolerance. Unfortunately, GHB is most frequently found in liquid form of widely variable concentration. 1 gram of GHB powder can be dissolved into as little as 1 ml of water (this makes 5 g per tsp) or a much greater volume and there is virtually no way to tell the concentration once it's in liquid form. The only way to know the concentration of liquid GHB is to know and trust information provided by the source. Users should be extremely careful about GHB dosages as even small overdoses can result in temporarily unrousable sleep.

## LAW

GHB is illegal to possess or sell

# GHB

## CAUTION

GHB's dose/response curve is similar to that of alcohol: At higher doses, users fall unconscious and are temporarily unable to be awakened (coma). It may also dangerously depress breathing. ACON strongly recommends that all liquid GHB be coloured with blue food colouring. This serves a dual purpose of reducing the chance that it will be mistaken for water...as well as reducing the possibility that it can be added to a drink without someone's knowledge. Be safe.

## EFFECTS

### Onset

As with alcohol and many other substances, the onset of GHB will be affected by how much and how recently one has eaten. Generally this will be between 10-20 minutes.

### Duration

The primary effects of GHB last approximately 1 ½ hours. For many people there is an additional period of time (1-2 hrs) of more subtle effects. Some recreational users consume GHB in a manner similar to alcohol, sipping it slowly over an evening rather than drinking a full dose all at once. In this case the duration will be longer as the period of ingestion is stretched out over time.

## CHEMISTRY

GHB is most commonly produced by combining gamma butyrolactone and a strong base such as sodium hydroxide (lye). These two substances react chemically and form the unique chemical GHB.

## PROBLEMS

Unfortunately, GHB has a few prominent problems which, in combination, can be quite dangerous. The difference between a recreational dose and a mild overdose (temporarily unrousable sleep) can be as little as 1-2 grams, the equivalent of a single dosage unit. Combining GHB with alcohol can lead to overdoses at even lower levels. Also, because GHB generally comes in liquid form and because the concentration of this liquid is difficult to determine, it is relatively common for people to accidentally take a larger dose of GHB than they think they are taking. Everyone thinks it can't happen to them, but people should be extremely careful about knowing the concentration of the material they use and about measurement techniques. GHB should be stored in a container which could never be mistaken for a beverage container and liquid GHB should be coloured blue so it can not be mistaken for water. Powdered GHB is much less likely to be accidentally ingested.

In addition to the problems around dosage, GHB also has a problem with the specific effects of an overdose. At higher overdose levels, GHB can produce both unconsciousness and vomiting. This can be an extremely dangerous combination. Vomiting while laying unconscious on one's back can lead to aspiration (inhalation) of the vomit which can cause suffocation and damage to the lungs. Individuals who are unconscious and vomiting should be turned on their side and their airway cleared so they do not inhale their vomit, and should be constantly monitored until help arrives or they become conscious.

# GHB

## **EFFECTS cont...**

The effects of GHB at recreational doses are physically quite similar to those of alcohol. At lower doses effects include relaxation, reduction of social inhibitions, decreased motor skills, mood lift and other effects similar to mild alcohol intoxication. At higher recreational doses effects can include dizziness, difficulty focusing the eyes, positive mood changes, increased appreciation of music, dancing, and talking, slurring of speech, nausea, and grogginess. The line between high recreational dose and overdose can be a narrow one. At the overdose level, individuals may experience extreme grogginess (nodding in and out of consciousness) or unconsciousness, extreme dizziness and disorientation, and vomiting. During higher overdoses (poisonings), users may experience unconsciousness, convulsions, vomiting, and potentially depressed breathing.

## **GHB and PLWHA**

GHB interactions with antiretrovirals may result in an increase of 5-10 times the blood plasma level of GHB in the system, possibly producing overdose.

(Source: "Risky Cocktails", Guy Pujol AIDS Survival Project, April 2003).

## **PROBLEMS cont...**

People who find themselves alone in this situation should try to position themselves so vomit inhalation can not happen if they fall unconscious.

Beyond the respiration of vomit, it has been suggested that GHB poisonings (high overdoses) can cause death but this is not a well understood or researched issue. The DEA reports over 60 GHB related deaths in the U.S. over the past 5 years, about 2/3 of these are poly-drug mortalities while 1/3 are GHB only.

## **DEPENDENCE POTENTIAL**

The dependence potential of GHB is not well known, but from reports it appears that GHB can be both physically addicting and mentally habituating for a small percentage of users. There are reports from a few individuals of severe withdrawal symptoms lasting for several days following repeated daily use. These symptoms include a strong desire to repeat the experience, difficulty sleeping, vertigo, and worrisome chest pains. We have not received any reports from users who find it difficult to stay off GHB once the withdrawal period is over.

## **CONTRAINDICATIONS**

Do not mix GHB with Alcohol. This can be an extremely dangerous combination.

Avoid mixing GHB with other depressants such as sleep aids and opiates

# GHB

## GHB AND SEX

GHB has been called an aphrodisiac. But its effects can also cause short-term memory loss and can decrease the ability to consent to sex. Have condoms and lube handy if you are planning a big night out with GHB. Having sex with someone too "out of it" to say yes or no is not okay and could be considered sexual assault.

## GHB AND SEX VENUES

Using GHB at sex venues is risky, due to the possibility of overdose in a locked cubicle where help is not readily available and injury from falling onto hard surfaces such as shower floors and spa pools.

## GHB AND DRINK SPIKING

GHB can also take away your ability to consent to sex. It decreases your inhibitions and gives you a short-term (light) amnesia. There have also been some indications that GHB could be been used in drink spiking due to its disinhibiting and amnesic effects.

If you think your drink might have been spiked, contact the Lesbian and Gay Anti Violence Project on (02) 9206 2116, or call the Police.

## TIPS TO MINIMISE HARM

**Is there a correct dose?** Effects can be different from solution to solution and from person to person. The right amount one night may be too much the next. The difference between the amount that works and the amount that causes overdose is very small.

**Before you take more** - Wait long enough to feel any effects before deciding to take more. Your decision to take more could be affected by what you have already taken. Taking that little bit extra could result in overdose.

**Mixing with other drugs** - Mixing GHB with other drugs can cause complicated cross-reactions. Avoid combining GHB with K, alcohol, painkillers, tranquilisers, or antihistamines (and opiates). Both alcohol & GHB have a sedative effect, mixing them can lead to deep unconsciousness, coma - even death.

**Feeling unwell?** Let your friends know what you're taking. Symptoms of GHB overdose can include confusion, nausea, visual disturbances, incoherent speech, memory loss, vomiting, drowsiness, uncontrolled body movements, coma, respiratory arrest. If you are feeling unwell, tell a friend or a friendly face. Seek medical assistance immediately from medical, security, or rovers.

**Driving after taking GHB** - Driving under the influence of GHB is considered more dangerous than driving under the influence of alcohol. If under the influence or coming down, take a taxi.

**Remember HIV** - GHB can bring down barriers and affect your decisions about your health and wellbeing, or that of others. Be prepared with condoms and lube.

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## IN CASE OF OVERDOSE

**Signs of an overdose:** Someone appears to be asleep but cannot be woken may be. Incoherence, profuse sweating, vomiting, irregular or shallow breathing. loss of muscle control and involuntary muscle contractions are other signs of overdose.

Get (medical) help immediately by dialling 000 if you or someone else experiences any of the symptoms listed above.

If you are in a club or at a dance party, attract the attention of medical or security staff, or ACON Drug Rovers.

If you have notified someone or are waiting for an ambulance, lay the person on their left side (recovery position) so if they vomit they won't choke. Make sure their air passage is clear and their chin is not pressed up against their chest.

02 9206 2000 or 1800 063 060  
[www.acon.org.au](http://www.acon.org.au)

## TIPS TO MINIMISE HARM cont...

Wait long enough to feel any effects before taking more. Remember that GBL and other similar chemicals take longer to turn into GHB in the body.

Avoid using alone, or with your partner at home, or other situations where help might not be available.

Someone who starts falling asleep on GHB may overdose later. Stay with the person and check them often. If they no longer respond, get medical assistance immediately!

If your friends are getting drowsy from GHB, don't let them fall into a 'G-sleep' because they may not wake up. Try to keep them awake and moving until the effects have worn off.

  
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