



## Official Name

GHB (gamma-hydroxybutyrate)

## Street Name

G, liquid ecstasy, liquid x, grievous bodily harm, fantasy

## What is it?

GHB (gamma-hydroxybutyrate) is produced naturally in the human body in very small amounts. When taken as a recreational drug, and especially when taken in combination with alcohol or other drugs, GHB can be extremely dangerous.

GHB is a central nervous system depressant. That means it makes you sleepy, and slows down your breathing and heart rate.

The only current medical use of GHB in Canada is as a treatment for narcolepsy, a rare sleep disorder.

It is illegal to possess, traffic, import or produce GHB in Canada.

## Where does it come from?

Access to pharmaceutical GHB is tightly regulated. GHB that is sold as a street drug is produced illegally using chemicals and processes that vary from lab to lab. The strength and purity of the final product also vary.

GHB “precursors” gamma-butyrolactone (GBL) and 1,4-butanediol (BD) are commercially available industrial substances that are not intended for human consumption. When ingested, these substances are converted by the body into GHB. GBL and BD are also used to manufacture GHB.

## What does it look like?

In its liquid form, GHB looks like water. It has no smell, and is tasteless or has a slightly salty or solvent taste that can be easily masked. It is usually sold as a liquid in small vials. GHB is also available as a white powder or capsule.

## Who uses it?

GHB gained popularity in the 1990s as a “club drug” among young people for its euphoric and sedative effects. At the same time, GHB became notorious as a “date rape drug,” with reports that it was being slipped into drinks to facilitate sexual assault.

Users of GHB include body builders who believe the drug can help to reduce fat and build muscles. GHB also stimulates human growth hormone. Some users claim GHB enhances sexuality.

People who experience cataplexy (sudden loss of muscle tone) associated with narcolepsy may be prescribed GHB in its pharmaceutical form, known as Xyrem. For people with this condition, taking the drug at night helps to reduce daytime sleepiness.

A 2009 survey of Ontario students in grades 7 to 12 reported that 0.5 per cent had used GHB at least once in the past year. Adult use of GHB in Canada has not been studied.

## How does it make you feel?

How GHB affects you depends on various factors:

- your age and body weight
- how much you take and how often you take it
- how long you've been taking it

- the method you use to take the drug
- the environment you're in
- whether you have certain pre-existing medical or psychiatric conditions
- whether you've taken any alcohol or other drugs (illegal, prescription, over-the-counter or herbal).

The way you feel when you take GHB is similar to the way some people feel when they drink alcohol. At a low dose, users usually feel more sociable, less inhibited and lightheaded. A slightly higher dose intensifies these effects or makes you drowsy and dizzy. A little more may cause nausea and vomiting, and a higher dose can make you slip into a deep sleep. An overdose can result in difficulty breathing, a lowered heart rate, convulsions and even death.

With GHB there is only a slight difference between a dose that produces the desired effects and a dose that puts the user at risk. If you have a little too much GHB, the consequences can be fatal.

GHB can also cause confusion, unusual and disturbing thoughts and depression.

## **How long does the feeling last?**

The effects of GHB can generally be felt 10 to 20 minutes after you take it, and can last up to four hours, depending on the dose.

## **Is it addictive?**

Yes. Signs of addiction include using GHB more often than intended, and continuing to use it despite negative consequences. People who use GHB regularly can develop tolerance to the effects of the drug, which means they may need to take more to get the desired effect. Regular use can also cause physical dependence. People who are physically dependent on GHB will experience withdrawal symptoms if they abruptly stop using the drug. Withdrawal

symptoms can include anxiety, tremors, inability to sleep and other unpleasant, potentially dangerous effects, including paranoia with hallucinations and high blood pressure. People who are physically dependent on GHB should seek medical help to ease withdrawal. GHB withdrawal can be life threatening.

## **Is it dangerous?**

Yes, GHB is dangerous in a number of ways.

Since GHB is illegal, there are no controls over the strength and purity of the drugs produced. What's sold as GHB often contains unknown drugs or other fillers, which may be toxic. You don't know how much GHB is in the solution or what dose is safe.

With GHB it's easy to take too much, or overdose. Deaths have been reported. When GHB is taken with alcohol or other drugs, the effects are more intense, and the risk of toxic effects and overdose increases. GHB-related deaths usually involve other drugs, such as alcohol.

GHB is a potent sedative, causing users to lose consciousness and fall into a deep sleep from which they might not wake for several hours. They may vomit while they're sleeping and choke. When in a GHB sleep, people may have trouble breathing and convulsions can occur. Users sometimes wake to discover that alarmed friends or family have rushed them to hospital for emergency care.

GHB's liquid form allows it to be slipped into drinks, and its sedative effects prevent victims from resisting sexual assault. GHB can also cause amnesia, meaning that when people recover from the drug's effects, they may not remember what happened.

GHB may interact dangerously with some medications, such as protease inhibitors used to treat HIV.


Driving after taking GHB is extremely dangerous because sleep may come on suddenly. Driving or operating machinery while under the influence of GHB, or any drug, increases the risk of physical injury to the user and to others.

## What are the long-term effects of using it?

Overdosing on GHB can lead to profound coma, which may be neurotoxic to the brain, especially to the developing brain of a young adult. However, more research is needed.

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## Where can I find help, treatment and support?

- Treatment at CAMH: [Access CAMH](#)
- [Help for families from CAMH](#)
- [ConnexOntario](#) 
- Kids Help Phone at 1 800 668-6868

## Where can I find more information?

- A free tutorial on addictions is available on the [Mental Health 101](#) page.
- [Addiction: An Information Guide](#) <sup>PDF</sup> (PDF)