What are GHB and GBL?

GHB (gamma-hydroxybutyric acid) is naturally found in tiny quantities in human the body. GHB that is available as a recreational drug is manufactured, but is still the same compound. GBL (gamma-butyrolactone) is a ‘pro-drug’ of GHB, which means that it is converted into GHB in the body and has very similar effects and harms.

What are the effects of GHB/GBL?

**Desired effects:** euphoria, increased confidence, sociability and heightened sex drive; stimulating effects have also been reported.

**Unwanted effects:** dizziness, nausea, confusion, drowsiness, seizures, temporary amnesia, uncontrollable shaking, headaches, unconsciousness and coma.

How does GHB/GBL work in the body and brain?

GHB/GBL act on a specific GHB binding site and, like alcohol, on the GABA receptors. They are central nervous system (CNS) depressants, which cause parts of the brain to become less excitable and responsive. This can result in a decreased rate of breathing and decreased heart rate, and in high doses its sedative effects can lead to loss of consciousness.

Overdoses are common with GHB/GBL, as the difference between the size of the dose that produces the desired effects and the size that can lead to unconsciousness is very small. GHB/GBL also has a ‘steep dose-response curve’, which means that even an additional very small amount taken on top of a previous dose can cause an accidental overdose. Alcohol can have the same effect if taken on top of GHB/GBL. In severe cases, effects can include respiratory depression – which can kill or cause brain damage – slow heart rate, seizures and unconsciousness, possibly leading to coma or death.

Frequent use of GHB/GBL, especially daily use, can lead to dependence (addiction). People dependent on GHB/GBL will use repeat dosing throughout the day and night to feel ‘normal’ and avert withdrawal symptoms. Withdrawal symptoms will develop when GHB/GBL use is stopped abruptly and include insomnia, anxiety and tremors; these can be severe and potentially life threatening.

**GHB/GBL withdrawal can be life threatening and must be treated as a medical emergency.**

**Stopping use without medical supervision can be very dangerous, but help is available.**
The use of GHB/GBL is associated with risk, but you can reduce the risks

Seek medical attention immediately if you have taken too much GHB/GBL. Do not use other drugs in the hope of reversing the effects.

Two or more substances used at the same time increases the risk of overdose significantly (especially sedatives, e.g. alcohol, ketamine).

Always measure GHB/GBL doses accurately (for example use syringes or pipettes, never free pour). Wait until the effects are felt and do not re-dose for at least 2 hours; it is very easy to overdose on GHB/GBL.

You should avoid using GHB/GBL on your own and always use it in a safe place and with someone who has not taken it, as it is common to become unconscious. Think about safe sex.

If you have used GHB/GBL and are going to sleep, sleep on your side in case you are sick. Place sleeping or unconscious friends in the recovery position.

Never drink GHB/GBL straight out of a bottle or pour a dose straight out of a bottle. Always dilute in water and add food colouring to avoid accidental drinking. NEVER keep GBL in drinks bottles, especially in public venues where it might be drunk by others not aware of the content.

GHB/GBL is very physically addictive and dependence can happen quickly. Avoid frequent use, especially daily use.

Severe and potentially serious GHB/GBL withdrawal symptoms happen if you are dependent and you miss a dose or reduce the amounts taken abruptly.

Acute withdrawal symptoms and have no GHB/GBL? Seek medical help immediately in an emergency department as this can be a very serious medical emergency.

Find medical support for planned GHB/GBL detoxification. Do NOT attempt to stop abruptly on your own. If you want to reduce your dose, do so in VERY small doses until you find medical support.

Employ methods to stabilise your use; consumption diaries can be very helpful. Keep a G diary and record of your doses and times to stabilise your use.