GAMMA Hydroxy Butyric Acid (GHB)

Advice for frontline workers

GHB (also known as G, fantasy, juice) is an illicit chemical which is also a naturally occurring neurotransmitter with its own specific GHB receptor; it is also a weak GABA-b agonist. GHB is a colourless, odourless liquid of variable concentration, usually sold in small bottles or vials. It is usually swallowed, with 1 to 2mL being a common dose. It can come as a bright blue liquid known as 'blue nitro', and less commonly as a crystal powder.

Gamma butyrolactone (**GBL**) and 1,4 butanediol (**1, 4-BD)** are precursors of GHB. They are rapidly metabolized to GHB and in effect have identical clinical features. GBL and 1,4-BD are thought to be about two to three times as potent as GHB. GBL has a quicker onset and decay in action than GHB, and 1,4-BD is slower in onset of action than GHB.

At low dose, GHB causes euphoria. It is sedative and amnestic. It has a **narrow therapeutic window** and overdose can result in cardio-respiratory arrest. Regular heavy use can result in the development of **dependence** and in these situations, sudden cessation can result in a **withdrawal syndrome**. Withdrawal from GHB can be very dangerous. Severity varies considerably from mild to severe and in some cases intensive care treatment is required.

More information on **GHB withdrawal management** is available on the SA Health Website here. A factsheet for people using GHB/GBL is available here.

GHB use has increased in Australia in recent years, with higher rates of use being reported among some priority populations, including young people, women, and members of the LGBTQIA+ community.

Overdose

GHB toxicity depends on dose, the person's weight, tolerance, individual susceptibility, and other substances taken. It is difficult to predict dose-effect profiles; however, **doses in excess of 2mls** are likely to be increasingly toxic with sedation and cardiorespiratory depression. This is especially the case in novice users without tolerance.

Overdose witnesses should be advised that if they think someone has overdosed or any of below symptoms are present:

- unconsciousness
- irregular or shallow breathing
- confusion, irritation and agitation
- hallucinations
- vomiting
- blackouts and memory loss

……Call 000 for an ambulance
Stay with them until help arrives and administer first aid including naloxone.
Police will only come if the overdose is suspicious, there has been, or is likely to be a death, or the ambulance officers call for help.

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Harm reduction

Although there is **no safe level of GHB use**, people who plan to continue using GHB should be provided with harm reduction information including:

- not using alone
- taking a smaller test dose first
- wait for the effects to occur before redosing
- always measuring doses (small volume syringes may be useful in measuring doses)
- setting limits on the quantity used in a session
- only using GHB in safe places
- telling someone what they have taken
- avoid using alcohol and other drugs when using GHB
- practice safe sex.

Illicit drugs have no quality control and may contain unexpected substances.
If you use illicit drugs, ensure you have some naloxone on hand (a drug which reverses opioid overdose).
Naloxone only works against opioids (e.g. NITAZENES, heroin, fentanyl, methadone).
Naloxone will not harm the person if the overdose turns out not to be opioid related
Go to www.sahealth.sa.gov.au/naloxone for more information.

Individuals who use GHB may be provided with advice on 'S-T-A-Y-I-N-G S-A-F-E'.

S Seek medical attention straight away if someone has taken too much GHB/GBL. Do not use other drugs in the hope of reversing the effects.

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

A Always measure GHB/GBL doses accurately (for example, use syringes). Wait until the effects are felt and do not re-dose for at least 2 hours. Never drink GHB/GBL straight out of a bottle

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

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

N Never keep GHB/GBL in drinks bottles, especially in public venues, where it might be drunk by others not aware of the content. Always dilute in water and add food colouring to avoid accidental drinking.

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

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

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

F Find a 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.

E Employ methods to stabilise your use; for example, consumption diaries can be very helpful.

For more information

Alcohol and Drug Information Service (ADIS)
Phone: 1300 13 1340
Confidential telephone counselling and information available between 8.30am and 10pm every day

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