

GHB Addiction & Withdrawal Syndrome

Fact Sheet - www.projectghb.org

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Knowledge of gamma hydroxybutyrate (GHB) by the public and in law enforcement/medicine is typically limited to its abuse as an intoxicant and use as a rape weapon. But GHB is also an addictive drug with a prolonged withdrawal that can be severe and even fatal. Medical intervention is the key; lack of medical intervention can easily result in death. GHB addicts can and have died in custodial settings for lack of appropriate medical care, a liability issue. A number of police officers & firefighters around the country have also fallen prey to this drug, usually through the gym scene. Steroids & GHB go hand-in-hand. Recognition and treatment of GHB addiction and withdrawal isn't readily available even in ERs & treatment centers, but information to properly manage a GHB withdrawal IS available through Project GHB. GHB addiction is characterized by around the clock dosing (every one to three hours, day/night, with heavier doses at night to achieve sleep). Addiction can develop in a few weeks. Use for four to eight months is common among the 2,000 GHB addicts who have come forward for help through the GHB Addiction Helpline via www.projectghb.org. Others have used for more than ten years, making it impossible to know at what point they became addicted.

ADDICTION SCENARIO--Occasional users are at risk from rape, overdose and death, but are not as likely to become addicted. Those using GHB on a daily basis as an anti-depressant, sleep aid, workout aid, weight loss product, anti-aging substance, etc., are at risk of addiction by virtue of the regular, frequent use. From a nightly sleep aid, use casually moves into a morning "wake up" aid. Then in the afternoon, to have sex, to go out in public, etc. Often the pattern develops without the user realizing what is happening since they didn't see it as a "drug" or unsafe because of Internet assurances. Stage two, however, comes when the honeymoon is over. Friends, spouses, and co-workers begin to observe bizarre behavior changes, frequently with no idea of the cause. Episodes may be as subtle as a single "head snap" that occurs shortly after taking a dose, or several minutes of twitching, strange behavior, or black outs. These episodes may occur only following the heavier nighttime doses or after virtually every dose. Thus, breaking the bathroom mirror while getting ready for bed, or waking up on the bathroom floor with a bloody (or broken) nose is not uncommon as a result of the "head snap," which may result in hitting the mirror or the edge of the sink. Often the addict has no recall of such incidents. The addict grows distant from spouse, family, and friends and may begin to withdraw from public contact or become captivated by pornography or strip joints, which may be a total behavior change from that exhibited prior to GHB use. GHB addicts typically report numerous drunk/drugged driving episodes, which are frequently unrecognized, especially if there has been no use of alcohol or other drugs.

WHO ARE THE G-AHOLICS?

- *Bodybuilders/other athletes, including pros, using GHB for a sleep or workout aid or weight loss tool--the largest group.
- *Business professionals who travel frequently and were introduced to GHB as a "safe" sleep aid.
- *The elderly, who have been told that GHB is an anti-aging compound.
- *People with prior depression, who have been told that GHB is an anti-depressant.
- *People subject to drug testing programs who use GHB as an alcohol substitute and to bypass testing.
- *Chronic pain patients for whom standard medications don't work well; fibromyalgia patients for whom regular medications seem inadequate (Xyrem® is prescription GHB & gives the same risky side effects as any GHB)

NOTE: *Although GHB can be identified in tests, it remains in body fluids for a relatively short period of time compared to other drugs; it lasts in blood for four hours and in urine for twelve hours. However, GHB is not yet included in the normal testing procedures of most agencies thus we are seeing subcultures of GHB abusers developing, born of the fact that they were on probation or other testing programs (for other drugs) and found that by abusing GHB they would not be caught.*

ANALOGS OF GHB--The product ingested may be actual GHB, ranging from home brew to pharmaceutical grade, or an analog of GHB, a chemical cousin, some of which convert to GHB in the body. This most often is gamma butyrolactone (GBL) or 1,4-butanediol (BD). GBL is both a precursor (primary ingredient in GHB) and an active analog. BD is an active analog and converts to GHB. There are other active analogs. GHB is still readily available at gyms, clubs and via Internet. GBL on rare occasions appears in stores in paint strippers or nail polish removers; these products are abused. Bogus Internet products are disguised as "nail polish removers," "chrome cleaners," etc. To prosecute these "cleaning products," a nexus to human use must be shown.

GHB OVERDOSE RE ADDICTS--GHB addicts typically experience frequent overdoses or mini-overdoses. Thus, they are often treated as overdose victims, without recognition of the underlying addiction. GHB has a steep dosage response curve and, even with tolerance, its effects vary greatly. Addicts may dose—1) Precise dosing in regular intervals separated by one to three hours, with slightly higher doses at night for sleep; or 2—Around the clock "sipping" from a bottle of diluted product.

GHB WITHDRAWAL SYMPTOMS--Missing a dose by more than a few hours initiates withdrawal. This is first characterized by profuse sweating, anxiety attacks, and periodically soaring blood pressure and pulse. This may subside after two or three days. Thus, on day three, a patient may "seem" to be doing "fine" and may be released from treatment too soon. The second phase of withdrawal, which may include hallucinations and altered mental state, may begin earlier, but may also be delayed to day four or five. Users often report severe insomnia and withdrawal may be complicated by profound sleep deprivation. Trauma may also

result from disorientation and sleep deprivation. Symptoms of mild GHB withdrawal may resolve within 2-3 days. Severe withdrawal may last up to 2 weeks or more. Symptoms may be episodic when waning.

GHB DETOXIFICATION PROTOCOLS--Treatment of the GHB withdrawal syndrome may involve use of benzodiazepines, antipsychotic medications, or phenobarbital. It should be noted that although tapering GHB doses prior to detoxification may help reduce the severity of the withdrawal, attempts of some addicts to self-detoxify, without medical assistance, have been fatal, as the withdrawal may be unpredictable. Further, as most addicts are unable to tolerate untreated symptoms of withdrawal, this method is frequently unsuccessful as well as dangerous. Basic recommendations from doctors working with Project GHB include:

In-patient treatment of GHB withdrawal: Early stages of withdrawal or mild withdrawal may be treated in a standard hospital ward. However, early admission to the intensive care unit (ICU) may be necessary in severe cases manifesting refractory agitation, hallucinations, and delirium. It is important to treat the clinical manifestations of withdrawal **AGGRESSIVELY**. If you are concerned about the patient's airway and ventilation, or if agitation is uncontrollable, do not hesitate to use endotracheal intubation and mechanical ventilation.

Benzodiazepines: Most commonly reported treatment. Loading doses may decrease likelihood of withdrawal delirium and are critical for control of psychotic agitation. Many GHB addicts have extremely high tolerance for benzos, thus very high, frequent doses may be necessary (similar to treatment of severe alcohol withdrawal). *Diazepam* is recommended due to its long duration of action and requires serial loading. Each dose has an immediate effect until it re-distributes to fat. When all of the fat stores are saturated, no more doses are required and things may go smoothly. 10 mg IV every 5-10 minutes may be required to control symptoms in patients with very severe withdrawal. Others will respond to lower dosages. Other benzos such as *lorazepam* and *chlordiazepoxide* have also been used; however, withdrawal from these shorter acting benzodiazepines may occur when stopped.

Propofol (Diprivan®): May be necessary in addition to IV benzodiazepines for control of refractory agitation. Dose as necessary, which may be up to 40 or 80 mcg/kg/min IV. Propofol has a very short half-life but it is very lipid soluble and, like diazepam, if given for many hours to several days, propofol will be stored in lipid tissues. Thus, after discontinuation, it will be slowly released, giving it, in effect, a long duration of action if it has been administered for a long period of time.

Barbiturates: May be used in conjunction with benzodiazepines. *Pentobarbital* has also been used to treat withdrawal symptoms resistant to benzodiazepines. Care must be taken, however, due to its short half-life, which can lead to further withdrawal as it is discontinued. *Phenobarbital* may also be used and has a much longer duration of action than pentobarbital.

Anti-convulsants: Benzodiazepines should be adequate. Data on incidence/treatment of GHB withdrawal seizures is inadequate for other specific recommendations.

Physical restraints: May be necessary for severe psychotic agitation.

Medical complications of GHB withdrawal: IV fluid therapy may be necessary to maintain hydration and electrolyte balance. Rhabdomyolysis may develop, necessitating fluid therapy and adequate sedation to limit muscle breakdown. Deaths can occur.

Psychiatric assessment and treatment: A full psychiatric work-up, preferably early on, is critical to identify pre-existent comorbidities as well as new onset disorders; new onset of depression and/or anxiety disorders in patients with no prior history has been documented to occur among recovering GHB addicts and to contribute to a high rate of relapse.

Chemical dependency (CD) treatment: As noted above, relapse rates are high, due to intense craving, premature discharge with ongoing withdrawal symptoms, and inadequately treated depression, anxiety, panic attacks, etc. Additionally, denial is extremely common due to pervasive promotion and use of GHB/analogs for purported health benefits; many patients persist in beliefs that use of GHB/analogs is beneficial and controllable. Ongoing treatment is critical to reduce risk of relapse.

Out-patient treatment of GHB withdrawal: Some doctors recommend use of a supervised substitution taper protocol using phenobarbital. Use is limited to treatment of patients who present without autonomic instabilities or delirium, or treatment of patients experiencing protracted "low grade" symptoms subsequent to in-hospital stabilization.

Persistent and long-term effects: Some report persistent neurologic (tremors, tingling, spasms), cognitive (memory loss) and emotional symptoms (depression, anxiety, panic attacks) following detoxification (or may start prior to detoxification as well).

AFTER THE DETOX—ONGOING AGONY

Multiple relapses are common in the majority of GHB addiction cases. Many describe that GHB leaves a "hole in your soul." Establishing a decent sleep pattern is often a problem. Depression, even at suicidal levels, is nearly standard. Anxiety attacks are ongoing. Depression/anxiety typically decrease with time, taking weeks, months or even years for others. Many recovering addicts need medication at least temporarily to deal with the sleep/depression/anxiety issues. Those with prior depression may have the most difficulty finding meds that work well after GHB use. Accidental overdoses on other drugs, especially trying to detox without adequate medical supervision, are common. These deaths may not be recognized as related to GHB since there will be no GHB in their system. Suicides have been noted from early in detox to months later. Many have by now lost jobs, financial security, family, and other relationships. Many do not see themselves as "addicts" because of their unintentional involvement with this drug and shy away from AA/NA meetings. They need to recognize their status as indeed "addicted" and need understanding in treatment and meetings to put aside this alienation. As with any drug, acceptance of their addiction is crucial to management.

For further information, please visit our website: www.projectghb.org. Doctors needing more details information may want to refer to the book, "G'd Up 24/7: The GHB Addiction Guide" for further (medication information above is quoted from that book). Project GHB also has experienced doctors who are willing to communicate with any doctors worldwide needing more information.