

Marijuana Concentrates

Marijuana has long been used for both recreational and medicinal purposes. Past year use by U.S. adults is estimated to be close to 10%.¹ Lately, an increase in the use of "marijuana concentrates" has been observed. Common names for these concentrates are: oil, wax, budder, butane hash oil (BHO), shatter, and dabs. The concentrations of tetrahydrocannabinol (THC) in these products range from 40-90%, up to four times as much as traditional street marijuana. The concentrates are brown-yellow in color and can be creamy, soft, or hard in consistency.

Concentrates can be mixed with food and ingested, but most commonly the concentrates are smoked. The term "dabs" refers to the method of inhalation, whereby a small amount (dab) of concentrate is placed on the end of a short rod and then heated with a blowtorch. This allows the user to get high very rapidly. Recently, there has been a preference for using e-cigarettes or vaporizers as they are smokeless and odorless and the user can achieve a high with a single inhalation.

Little is known about the clinical effects of using marijuana concentrates, but tachycardia, hypertension, and severe psychological symptoms such as paranoia, anxiety, hallucinations, and panic attacks are to be expected. Compared to smoking flower cannabis, more physiologic dependence and more severe withdrawal are possible.

While data on the use and effects of marijuana concentrates are limited, a recent study revealed that patients prefer the use of marijuana concentrates to traditional marijuana because fewer "hits" are necessary to achieve euphoria and the effects are stronger and last longer.² Additionally, the recent increase in concentrate use seems to correlate with laxer marijuana legislation, especially in western states.³ As the use of these compounds is on the rise, healthcare professionals should consider marijuana concentrates as a possible etiology for patients presenting with symptoms of tachycardia, hypertension, anxiety, and paranoia.

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1. Hasin DS, Saha TD, Kerridge BT et al. Prevalence of marijuana use disorders in the United States between 2001-2002 and 2012-2013. *JAMA Psych. Advance online publication.* doi:10.1001/jamapsychiatry.2015.1858.
2. Loflin M, Earleywine M. A new method of cannabis ingestion: The dangers of dabs? *Addict Behav* 2014;39:1430-3.
3. Bell C, Slim J, Flaten HK et al. Butane Hash Oil Burns Associated with Marijuana Liberalization in Colorado. *J Med Toxicol Advance online publication.* doi:10.1007/s13181-015-0501-0.



Did you know?

A common method of extracting THC has caused explosions and severe burns.

Particularly concerning about marijuana concentrates is the cheap yet dangerous method of extracting THC. The most common method involves soaking the marijuana leaves in butane and then burning off the butane, leaving behind a thick waxy mixture that is rich in THC. Butane is highly volatile; therefore, chemical explosions and fires occur during the burning off stage, resulting in severe burns.³



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