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Understanding Your Risk for Cannabis Use Disorder

KEY POINTS

- Some people who use cannabis will develop cannabis use disorder, meaning that they are unable to stop using cannabis even though it's causing health and social problems in their lives.
- The risk of developing cannabis use disorder is greater in people who start using cannabis during youth or adolescence and who use cannabis more frequently.

Signs of cannabis use disorder

Fast Statistics

- Approximately 3 in 10 people who use cannabis have cannabis use disorder. [1]
- It is estimated that people who use cannabis have about a 10% likelihood of becoming addicted. [2]
- The risk of developing cannabis use disorder is greater in people who start using cannabis during youth or adolescence and who use cannabis more frequently. [3]

The following are signs of cannabis use disorder: [4]

- Using more cannabis than intended
- Trying but failing to quit using cannabis
- Spending a lot of time using cannabis
- Craving cannabis
- Using cannabis even though it causes problems at home, school, or work
- Continuing to use cannabis despite social or relationship problems
- Giving up important activities with friends and family in favor of using cannabis
- Using cannabis in high-risk situations, such as while driving a car
- Continuing to use cannabis despite physical or psychological problems
- Needing to use more cannabis to get the same high

People who have cannabis use disorder may also be at a higher risk of other negative consequences, such as problems with attention, memory, and learning.

Cannabis use disorder and increased THC concentration

Some people who have cannabis use disorder may need to use more and more cannabis or greater concentrations of cannabis over time to experience a "high." The greater the amount of tetrahydrocannabinol (THC) in cannabis (in other words, the concentration or strength), the stronger the effects the cannabis may have on the brain. [5] [6] The amount of THC in cannabis has increased over the past few decades. [6] Products with high concentrations of THC can have greater intoxicating effects and increase the risk of overconsumption. [7]

In a study of cannabis research samples over time, the average delta-9 THC (the main form of THC in the cannabis plant) concentration almost doubled, from 9% in 2008 to 17% in 2017. [8] Products from dispensaries often offer much higher concentrations than seen in this study. In a study of products available in online dispensaries in 3 states with legal non-medical adult cannabis use, the average THC concentration was 22%, with a range of 0% to 45%. [9] In addition, some methods of using cannabis (for example, dabbing and vaping concentrates) may deliver very high levels of THC to the user. [6] [10] Cannabis concentrates come in many different forms and may be called extract, butane hash oil, wax,

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shatter, butane honey oil (BHO), budder, taffy, and live resin. [7] [11] [12]

Researchers do not yet know the full extent of the consequences when the body and brain are exposed to high concentrations of THC or how recent increases in concentrations affect the risk of someone developing cannabis use disorder. [6] There is moderate evidence that high THC concentration cannabis use by adolescents and young adults is associated with continued use and development of future mental health symptoms and disorders. [13] [14] [15]

SOURCES

CONTENT SOURCE:

National Center for Injury Prevention and Control

REFERENCES

- 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 Psychiatry*. 2015;72(12):1235-1242. doi: 10.1001/jamapsychiatry.2015.1858.
- 2. Lopez-Quintero C, de los Cobos JP, Hasin DS, et al. Probability and predictors of transition from first use to dependence on nicotine, alcohol, cannabis, and cocaine: Results of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC). *Drug Alcohol Depend.* 2011;115(1-2):120-130. doi: 10.1016/j.drugalcdep.2010.11.004.
- 3. Winters KC, Lee C-YS. Likelihood of developing an alcohol and cannabis use disorder during youth: association with recent use and age. *Drug Alcohol Depend*. 2008;92(1-3):239-247. doi: 10.1016/j.drugalcdep.2007.08.005.
- 4. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (5th ed). Washington, DC; 2013.
- 5. Freeman T, Winstock A. Examining the profile of high-potency cannabis and its association with severity of cannabis dependence. *Psychol Med.* 2015;45(15):3181-3189. doi: 10.1017/S0033291715001178.
- 6. Bidwell LC, York Williams SL, Mueller RL, et al. Exploring cannabis concentrates on the legal market: User profiles, product strength, and health-related outcomes. *Addict Behav Rep.* 2018;8:102-106. doi: 10.1016/j.abrep.2018.08.004.
- 7. Weinstein LC, Worster B. Medical Cannabis: A guide to the clinical and legal landscapes. J Fam Pract. 2019;68(7):390399.
- 8. Chandra S, Radwan MM, Majumdar CG, et al. New trends in cannabis potency in USA and Europe during the last decade (2008-2017). *Eur Arch Psychiatry Clin Neurosci.* 2019;269(1):5-15. doi: 10.1007/s00406-019-00983-5.
- 9. Cash MC, Cunnane K, Fan C, et al. Mapping cannabis potency in medical and recreational programs in the United States. *PloS One.* 2020;15(3):e0230167.
- .0. Raber JC, Elzinga S, Kaplan C. Understanding dabs: contamination concerns of cannabis concentrates and cannabinoid transfer during the act of dabbing. *The Journal of Toxicological Sciences*. 2015;40(6):797-803. Doi: 10.1371/journal.pone.0230167.
- .1. Potter BA. Terpenes: The Magic in Cannabis. Ronin Publishing; 2019.
- .2. Spindle TR, Bonn-Miller MO, Vandrey R. Changing landscape of cannabis: novel products, formulations, and methods of administration. Curr Opin Psychol. 2019;30:98-102. doi: 10.1016/j.copsyc.2019.04.002.
- 3. Hines LA, Freeman TP, Gage SH, et al. Association of high-potency cannabis use With mental health and substance use in adolescence. JAMA Psychiatry. 2020;77(10):1044-1051. doi: 10.1001/jamapsychiatry.2020.1035.
- 4. Di Forti M, Marconi A, Carra E, et al. Proportion of patients in south London with first-episode psychosis attributable to use of high potency cannabis: a case-control study. Lancet Psychiatry. 2015;2(3):233-238. doi: 10.1016/S2215-0366(14)00117-5.
- 5. Di Forti M, Quattrone D, Freeman TP, et al. The contribution of cannabis use to variation in the incidence of psychotic disorder across Europe (EU-GEI): A multicentre case-control study. Lancet Psychiatry. 2019;6(5):427-436. doi: 10.1016/S2215-0366(19)30048-3.

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