

# Cannabis Intoxication

## EVIDENCE REPOSITORIES

Evidence repositories are collections of best available resources and evidence (clinical guidelines, peer reviewed literature, systematic reviews, etc.), collated by our knowledge synthesis team and content advisors. This evidence repository is not intended to be an exhaustive list of resources for a topic, but rather a curated list of current, evidence-based resources, based on expert consensus of relevance and usability for a general emergency department setting. We search databases (Cochrane Library, PubMed, TRIP Database) and web search engines (Google, Google Scholar) to locate evidence. Additionally, hospital websites are browsed for guidance documents, such as clinical practice guidelines (CPG) for healthcare professionals.

Every effort is made to identify resources that are open access (i.e. publicly available, free of charge, not requiring a subscription).

More information about the creation of our evidence repositories can be found at <https://pubmed.ncbi.nlm.nih.gov/28537762/>

## CONTENT TEAM

Thank you to the following content experts and Knowledge Synthesis team who led the development of this evidence repository.

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# Cannabis Intoxication

TREKK developed resources for healthcare providers and parents & families can be found [here](#).

## Clinical Guidelines

1. Amirshahi MM, Moss MJ, Smith SW, et al. [ACMT position statement: Addressing pediatric cannabis exposure](#). J Med Toxicol. 2019;15(3):212-4.

## Systematic Reviews

1. Richards JR, Smith NE, Moulin AK. [Unintentional cannabis ingestion in children: A systematic review](#). J Pediatr. 2017;190:142-52.
2. Sorensen CJ, DeSanto K, Borgelt L, et al. [Cannabinoid hyperemesis syndrome: Diagnosis, pathophysiology, and treatment—a systematic review](#). Journal of Medical Toxicology. 2017;13(1):71-87.

## Key Studies

1. Gilley M, Brent J, Calello DP, et al. [Synthetic cannabinoid exposure in adolescents presenting for emergency care](#). Pediatr Emerg Care. 2021;37(1):e13-e6.
2. Bashqoy F, Heizer JW, Reiter PD, et al. [Increased testing and health care costs for pediatric cannabis exposures](#). Pediatr Emerg Care. 2021;37(12):e850-e4.
3. Noble MJ, Hedberg K, Hendrickson RG. [Acute cannabis toxicity](#). Clin Toxicol (Phila). 2019;57(8):735-42.
4. Levene RJ, Pollak-Christian E, Wolfram S. [A 21st century problem: Cannabis toxicity in a 13-month-old child](#). J Emerg Med. 2019;56(1):94-6.
5. Vo KT, Horng H, Li K, et al. [Cannabis intoxication case series: The dangers of edibles containing tetrahydrocannabinol](#). Ann Emerg Med. 2018;71(3):306-13.
6. Pinedo-Painous I, Garrido-Romero R, Valls-Lafon A, et al. [Intoxicación por cannabis en menores de 3 años](#). Emergencias. 2018;30(6):408-11.
7. Heizer JW, Borgelt LM, Bashqoy F, et al. [Marijuana misadventures in children: Exploration of a dose-response relationship and summary of clinical effects and outcomes](#). Pediatr Emerg Care. 2018;34(7):457-62.
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9. Wilson KM, Torok MR, Wei B, et al. [Detecting biomarkers of secondhand marijuana smoke in young children](#). Pediatric Research. 2017;81(4):589-92.
10. Finkelstein Y, Goel G, Hutson JR, et al. [Drug misuse in adolescents presenting to the emergency department](#). Pediatr Emerg Care. 2017;33(7):451-6.
11. Claudet I, Mouvier S, Labadie M, et al. [Unintentional cannabis intoxication in toddlers](#). Pediatrics. 2017;140(3).
12. Claudet I, Le Breton M, Bréhin C, et al. [A 10-year review of cannabis exposure in children under 3-years of age: Do we need a more global approach?](#) Eur J Pediatr. 2017;176(4):553-6.
13. Barceló B, Pichini S, López-Corominas V, et al. [Acute intoxication caused by synthetic cannabinoids 5F-ADB and MMB-2201: A case series](#). Forensic Sci Int. 2017;273:e10-e4.
14. Wang GS, Le Lait MC, Deakynne SJ, et al. [Unintentional pediatric exposures to marijuana in Colorado, 2009-2015](#). JAMA Pediatr. 2016;170(9):e160971.

# Cannabis Intoxication

15. Onders B, Casavant MJ, Spiller HA, et al. [Marijuana exposure among children younger than six years in the United States](#). Clin Pediatr (Phila). 2016;55(5):428-36.
16. ElSohly MA, Mehmedic Z, Foster S, et al. [Changes in cannabis potency over the last 2 decades \(1995-2014\): Analysis of current data in the United States](#). Biol Psychiatry. 2016;79(7):613-9.
17. Adair A, Greene SC, Greeley CS, et al. [Synthetic cannabinoid exposure: A new risk for children?](#) Clin Pediatr (Phila). 2016;55(11):1075-7.
18. Lovecchio F, Heise CW. [Accidental pediatric ingestions of medical marijuana: A 4-year poison center experience](#). The American Journal of Emergency Medicine. 2015;33(6):844-5.
19. Herrmann ES, Cone EJ, Mitchell JM, et al. [Non-smoker exposure to secondhand cannabis smoke II: Effect of room ventilation on the physiological, subjective, and behavioral/cognitive effects](#). Drug and Alcohol Dependence. 2015;151:194-202.
20. Cone EJ, Bigelow GE, Herrmann ES, et al. [Nonsmoker exposure to secondhand cannabis smoke. III. Oral fluid and blood drug concentrations and corresponding subjective effects](#). J Anal Toxicol. 2015;39(7):497-509.
21. Cipriani F, Mancino A, Pulitanò SM, et al. [A cannabinoid-intoxicated child treated with dexmedetomidine: A case report](#). J Med Case Rep. 2015;9:152.
22. Ammerman S, Ryan S, Adelman WP, et al. [The impact of marijuana policies on youth: Clinical, research, and legal update](#). Pediatrics. 2015;135(3):e769-e85.
23. Cone EJ, Bigelow GE, Herrmann ES, et al. [Non-smoker exposure to secondhand cannabis smoke. I. Urine screening and confirmation results](#). Journal of Analytical Toxicology. 2014;39(1):1-12.
24. Caponnetto P, Auditore R, Russo C, et al. ["Dangerous relationships": Asthma and substance abuse](#). J Addict Dis. 2013;32(2):158-67.
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28. Grauwiler SB, Drewe J, Scholer A. [Sensitivity and specificity of urinary cannabinoid detection with two immunoassays after controlled oral administration of cannabinoids to humans](#). Ther Drug Monit. 2008;30(4):530-5.
29. Bonkowsky JL, Sarco D, Pomeroy SL. [Ataxia and shaking in a 2-year-old girl: Acute marijuana intoxication presenting as seizure](#). Pediatr Emerg Care. 2005;21(8):527-8.
30. Montague RE, Grace RF, Lewis JH, et al. [Urine drug screens in overdose patients do not contribute to immediate clinical management](#). Ther Drug Monit. 2001;23(1):47-50.
31. Loiselle JM, Baker MD, Templeton JM, Jr., et al. [Substance abuse in adolescent trauma](#). Ann Emerg Med. 1993;22(10):1530-4.

## Other Resources

1. Nguyen TTJ. [Treat plays trick on a 3-year-old boy](#). Contemporary Pediatrics. 2016.