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ACMT Position Statement Revision: Preventing Cannabis Exposures in Children

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The position of the American College of Medical Toxicology (ACMT), is as follows:

Background

In the United States (U.S.), cannabis is federally designated as a Schedule 1 drug; however, more than one-half of states now have some form of legalized cannabis [1]. Rules and regulations for edible forms, packaging, portion and package sizes, sales, and marketing vary from state to state. Unfortunately, despite these rules and regulations, exploratory pediatric exposures to edible cannabis products continue to increase [2].

In 2019, the American College of Medical Toxicology (ACMT) published the ACMT Position Statement, Addressing Pediatric Cannabis Exposure [3]. Since that time, additional states have legalized medical and retail cannabis, cannabis use across the country has increased [4], and both Congress and the Drug Enforcement Administration have considered changing the federal designation for cannabis [1,5].

In consideration of new research and clinical experience, this position statement updates ACMT's previous statement [3] and is intended to guide rules and legislation for the purpose of decreasing the exposure of young children to toxicity from cannabis products.



Methods

The American College of Medical Toxicology (ACMT) assembled a panel of 20 experts in medical toxicology, pediatrics, pediatric emergency medicine, quality and safety, addiction medicine, public health, and pharmacy with clinical and research experience with pediatric cannabis exposure [Table 1]. The panel had diverse representation based on geography, primary specialty and practice, years of practice, and legalization status of cannabis in their jurisdiction. There were 18 voting members and 2 non-voting moderators who led the discussions. The scope of the panel was to develop a position statement that addresses actions and regulations that may decrease the risk of harmful exploratory exposure to cannabis in young children (< 6 years old).

This position statement does not address cannabis exposures in adults, intentional use in adolescents, chronic effects of cannabis, the efficacy of medical cannabis, or use of synthetic cannabinoids. Panel members established the definitions that are listed in Table 2 and are used throughout this manuscript.

Informed by existing literature, clinical practice, and current regulatory frameworks, panel members submitted draft statements, and these were assessed by the 18 voting members. A modified Delphi Method was used. Voting members used a 5-point Likert scale (strongly agree, agree, neutral, disagree, strongly disagree) for each proposed draft statement. Prior to voting, the saturation point at which we considered there to be consensus was defined as greater than 80% of all voting members denoting "agree" or



"strongly agree" to the statement. Proposed statements that did not meet consensus were discussed and, if necessary, reworded, and revoted. Contradictory or overlapping statements were then discussed, reworded, and revoted. Statements that did not reach saturation after two voting rounds were eliminated.

This document was reviewed and approved by the ACMT Board of Directors.

Discussion

The panel confirmed the prior recommendations and changed or added additional recommendations based on research and experience since the original 2019 statement. The panel accepted 38 initial statements which were combined into 23 compound statements, categorized by subject domain, and listed in Table 3.

The panel accepted several statements related to cannabis product packaging that are intended to decrease the risk of a young child ingesting these products. Most products that lead to severe toxicity in young children are cannabis edible products such as gummies and baked goods [6,7]. The panel strongly recommends that cannabis products should be sold in opaque child-resistant packaging and should not be shaped or colored in a way that is appealing to children. The panel recommends that cannabis packaging contain a pictorial warning, the Poison Center helpline number, and THC content, though this information is meant for adults to use to prevent exposure or to get help if a young child is exposed.



The panel recommends a maximum of 5 mg portion size and 50 mg total package size (content of THC) for cannabis products. The panel opined that limiting portion size to 5 mg would allow most young children with exploratory exposures to be observed at home by a Poison Center and would minimize the effects of a single portion (e.g., a gummy) ingestion by a young child. The panel recommends limiting the maximum total package content at 50 mg THC, which would likely limit the severity of toxicity if a young child ingested an entire package (e.g., ten 5 mg gummies) [7,8]. In a study of pediatric emergency department patients with cannabis exposures, children with *severe toxicity* ingested a median 5.4 mg/kg (IQR 3.2-8.2 mg/kg) of THC, and almost all ingestions that led to bradycardia, unresponsiveness, respiratory failure, intubation or required vasopressors were ingestions of greater than 6 mg/kg THC [7]. The panel agreed that 50 mg packages would limit a 10kg child (approximately 1-2 years old) to 5 mg/kg, and may avoid severe toxicity.

The panel accepted several statements aimed at avoiding specific toxicities. The panel achieved consensus that cannabis-containing beverages should contain only a single portion (5 mg THC). In some states, beverages may contain large amounts of THC (e.g. 100 mg) that are sold in containers with portion sizes that are fractions of an ounce. The panel also recommends that cannabis products not contain any other psychoactive substances, such as caffeine, ethanol, or cannabis-related products, such as delta 8-tetrahydrocannabinol or delta-10 tetrahydrocannabinol. The panel recommends that



cannabis-related compounds, such as delta-8 or delta-10 tetrahydrocannabinol, be regulated as cannabis products and require cannabis packaging requirements.

The panel recommends that cannabis marketing be regulated or restricted as it is for tobacco products; the public be educated on the potential for harm from acute ingestions in young children and safe storage of cannabis products. This includes encouraging healthcare providers to discuss ways to prevent pediatric cannabis exposures with anyone who regularly uses cannabis products, as well as encouraging those that use cannabis products to store them safely away from children as recommended by the United States Centers for Disease Control and Prevention (US CDC) [9].

The panel expects that, as state and federal agencies review or revise their cannabis laws and rules, they will prioritize the health of young children and work to prevent exploratory cannabis exposures. The panel recommends further research on the prevention of pediatric exploratory exposures including research on the effectiveness of poison prevention interventions, unit dose packaging, product labeling, and portion and package size.

In summary, the updated recommendations expand significantly on packaging, labeling, and retail practices, with specific THC limits per serving and package, prohibition of designs that are attractive to children, and requiring resealable child-resistant containers for multi-portion products. The panel added recommendations for product composition,



independent testing, and explicit warnings at point of sale, alongside greater alignment with tobacco advertising restrictions. Additionally, the panel emphasized public education, safe storage messaging, and healthcare provider engagement, while encouraging targeted research on pediatric cannabis exposures. These changes reflect a more detailed, prevention-focused, and systems-level approach to protecting children from unintentional cannabis exposure.

Disclaimer

While individual practices may differ, this is the position of the American College of Medical Toxicology at the time written, after a review of the issue and pertinent literature.



Table 1

ACMT Pediatric Cannabis Position Statement Panel

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Moderators:

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Table 2

Definitions

THC = delta-9 tetrahydrocannabinol

Portion = an amount of cannabis-containing edible that is intended to be ingested as a single serving. Sometimes also referred to as a "dose" or "serving size". For example, a single 5mg THC gummy.

Package = a container, or unit of sale, that may hold more than one portion of cannabis edibles. For example, a bag containing 10, 5mg gummies.

Psychoactive substance = any substance that may be used to seek euphoria or altered mentation. These include ethanol, nicotine, caffeine, synthetic cannabinoids, delta-8 or delta-10 tetrahydrocannabinol, pharmaceuticals, illicit substances, etc.

Poison Center Helpline = phone number that connects a caller to their regional Poison Center. Currently this number is 1-800-222-1222. Poison Help may also be accessed using poisonhelp.org.

Cannabis-related compounds = delta-8 tetrahydrocannabinol, delta-10 tetrahydrocannabinol, tetrahydrocannabinol-O-acetate, or any other psychoactive that are structurally similar to delta-9 tetrahydrocannabinol.



Retail cannabis = cannabis sold through a shop or by delivery for nonmedical use.



Table 3

Recommendations for preventing pediatric cannabis exposure:

Cannabis product packaging:

- 1) Must be child-resistant and consistent with the standards established by the Poison Prevention Packaging Act of 1970 Regulations, 16 CFR 1700.1 (b)(4).
- 2) Cannabis product labeling rules should be similar to those for tobacco and alcohol products, including
 - a) Packaging must not include markings that are appealing to children, such as bright colors, cartoon characters, or animal shapes.
- 3) Cannabis product packaging should:
 - a) be opaque.
 - b) not have designs similar to commercial snacks or candies.
 - c) have a clearly written, prominent, and pictorial warning that the product contains THC on the front and back of the label.
 - d) not have unsupported claims of health benefits.
 - e) include the Poison Center Helpline number.
 - f) list the THC concentration, total THC content, portion size, and THC per portion.

- 4) If products are packaged with multiple portions, then the package must be resealable so that it remains child-resistant and preserves the integrity of its contents.
- 5) Cannabis products must not contain other psychoactive substances (e.g., ethanol, caffeine, etc.)
- 6) If cannabis products contain psychoactive substances or cannabis-related compounds, these substances must be listed on the package.

Portion size:

- 7) Retail cannabis edibles should have a standard adult portion size that contains no more than 5 mg THC.
- 8) Cannabis beverages should not contain more than one portion of THC.
- 9) If multi-serving edibles are sold, each portion size must be clearly marked and intuitive to the consumer.

Product size:

10) Retail cannabis packaging should be limited to 50 mg THC total per package

Establishments that sell cannabis:



- 11) Cannabis products should only be available in a regulated marketplace that includes independent confirmation of THC content and evaluation of additional substances or contaminants.
- 12) Establishments that sell cannabis:
 - a) should display information about the potential negative effects of pediatric cannabis exposures in plain view near the point of sale of these products.
 - b) should make lock boxes and lockable bags available for purchase at the point of sale of these products.
 - c) should provide information to consumers on safe home storage.

Marketing:

- 13) Cannabis product advertising regulation should be the same as those used for tobacco products in the United States.
- 14) Education regarding the cannabis-related compounds should be readily available to the public and healthcare providers.

Public messaging:

- 15) Cannabis products should be stored:
 - a) up high, out of reach, and out of sight of children
 - b) in their original packaging
 - c) in a locked container when at home or during transport



- 16) Individuals should not consume cannabis products when visible to young children.
- 17) Parents should not administer cannabis products to children without medical oversight and authorization.
- 18) The poison center is a resource for any adverse reactions or suspected toxicity related to cannabis products.

Healthcare messaging:

- 19) Pediatricians and other healthcare providers should provide education about the potential negative health effects of cannabis
- 20) Pediatricians and parents should have age-appropriate conversations about cannabis and cannabis edibles with their children that highlight the potential negative effects.
- 21) Providers should include screening for cannabis use in the home and safe storage practices as part of injury prevention and harm reduction education.

Other:

22) Cannabis-related compounds (e.g., delta-8 or delta-10 tetrahydrocannabinol, tetrahydrocannabinol-O-acetate, etc.) should be regulated as a cannabis product and have packaging requirements, including a cannabis warning label and portion description.



- 23) The panel encourages research on:
 - a) The effectiveness of poison prevention interventions on exploratory pediatric cannabis exposures
 - b) The public health aspects of acute cannabis exposures
 - c) The effect that labeling and packaging have on acute pediatric cannabis exposures
 - d) The acute effects of cannabis in pediatric exploratory exposures including:
 - i) The dose at which a child may be safely observed at home
 - ii) The potential long-term effects of acute cannabis exposures
 - iii) Effective treatment for acute cannabis exposures



References:

- Sacco LN, Lampe JR, Sheikh HZ. Congressional Research Service. The federal status of marijuana and the policy gap with states. May 2, 2024.
 congress.gov/crs-products. Accessed 1 May 2025.
- Tweet MS, Nemanich A, Wahl M. Pediatric Edible Cannabis Exposures and Acute Toxicity: 2017-2021. Pediatrics 2023; 151(2): e2022057761
- Amirshahi MM, Moss MJ, Smith SW, Nelson LS, Stolbach AI. ACMT Position Statement: Addressing Pediatric Cannabis Exposure. J Med Toxicol 2019: 15; 212-214.
- Caulkins JP. Changes in self-reported cannabis use in the United States from 1979 to 2022. Addiction 2024; 119: 1648-1652.
- Department of Justice, Drug Enforcement Administration. 21 CFR Part 1208.
 Docket No. DEA-1362. Schedules of Controlled Substances: Rescheduling of Marijuana. https://www.federalregister.gov/d/2024-11137. Accessed 1 May 2025
- 6. Noble MJ, Hedberg K, Hendrickson RG. Acute cannabis toxicity. Clin Toxicol 2019; 57(8): 735-742.
- Pepin LC, Simon MW, Banerji S, Leonard J, Hoyte CO, Wang GS. Toxic tetrahydrocannabinol (THC) dose in pediatric cannabis edible ingestions.
 Pediatrics 2023; 152(3): e2023061374.



- Hendrickson RG, Horowitz KM, Cowdery CP. Minimum tetrahydrocannabinol dose that produces severe symptoms in children. Clin Toxicol 2025; Epub, https://doi.org/10.1080/15563650.2025.2562305
- Up and away. Centers for Disease Control and Prevention (CDC), 2025.
 https://upandaway.org/en/. Accessed 1 May 2025.